

Personal Adjustment

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Personal Adjustment

BY

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PERSONAL ADJUSTMENT

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PREFACE

The principles on which this book is based are products of my work with maladjusted persons during a period of over forty years. During that period of practical work the principles took shape and substance, and theories that I may have had in the beginning were progressively rectified. Being based on practical work, with conclusions developed during the work, it might be claimed that my conclusions involve the 'pathologist's fallacy'; but I think that continued association with normal persons has eliminated that danger.

Presentation in lecture form of the materials included in this volume to large classes of undergraduate students has led me to believe that the students have understood the points presented and have considered the topics to be important. I have therefore revised and rewritten my lectures and now present them so that general readers, as well as students, may have an opportunity to read them.

Some readers may think that the title of the volume should be *Personal and Social Adjustment* . . . ; but as I have indicated in various places in the presentation, adjustment, maladjustment, and readjustment are fundamentally personal processes. Some others may say that I am dealing with the topic called 'mental hygiene,' but I prefer not to use that designation.

In Chap. II, I give detailed attention to the processes and conditions of learning, because sound adjustment, maladjustment, and readjustment are all three learning processes. In this chapter, which is fundamental to the topics follow-

ing it, I have attempted to organize the facts that have been revealed by experimental research, while revising certain popular misconceptions.

As a preliminary to the discussion of marital problems, I have included a chapter (Chap. X) dealing with erotic, genital, and reproductive processes, a chapter that contains information needed by almost every person, married or unmarried. I have written this chapter in plain language and have so presented it in lectures because a veiled approach to the topic of 'sex' is manifestly absurd. Any topic pertaining to 'sex' should be either presented plainly or else omitted.

In discussing marital problems, I have avoided 'armchair theories' and have drawn on my long experience with disrupted families, which has been illuminating to me and has provided principles that should be useful to young persons of all types, principles that should be absorbed long before marriage is contemplated.

Chapter XIII, on the care and training of infants and children, also includes topics that young persons should understand long before marriage. This chapter, which is one of the most important in the book, is based on my practical experience, not only with my children and grandchildren, but also with the children of other parents.

Although the purpose of this volume is prophylactic rather than remedial, I have included some discussions of remedial techniques and principles and presentations of symptomology of mentally maladjusted conditions. These topics are included for two reasons: first, to illuminate the pitfalls that one must avoid in order to remain well adjusted; second, to give information on methods and techniques that persons can apply to themselves for the remedy of maladjusted conditions of minor sorts.

Since, in various places in the text, I have criticized the doctrines of the psychoanalysts, I have added the final

chapter, 'Psychoanalysis, Its Foundations and Applications,' in order to explain the antagonism of psychologists to the psychoanalytic doctrines. Psychoanalysis has for years been presented to the public as a 'modern scientific system,' and a large section of the public believes that psychologists accept the psychoanalytic doctrines; in fact, many persons think that psychology and psychoanalysis are the same thing. In this chapter I present facts of a historical nature, and facts of a practical nature, which are unknown to college students and to the major section of the public. It is indeed high time that psychoanalysis should be presented in its true light.

KNIGHT DUNLAP.

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INTRODUCTION

1. *Applied Psychology*

If the title of this book were *Social and Personal Adjustment*, the inserted word 'social' would be misleading because any personal adjustment involves adjustment of the person's social relations. The topics to be considered in this volume belong in the field of applied psychology, the purpose of the presentations being to explain how maladjusted conditions can be avoided or prevented from developing. To this end we shall consider some of the principles of therapy (remedy) of maladjusted conditions, not to give instruction in psychotherapy but to throw light on maladjusted conditions and on the methods by which you can avoid such conditions and can prevent their development in your children. First, we shall consider the general field of applied psychology and the subdivision of the field.

Psychology, as you know, is one of the oldest of the sciences—as old as arithmetic. The first treatise on psychology that has come down to us is one by Aristotle (384-322 B.C.), but there were psychologists before Aristotle was born. Aristotle's interests were primarily in what we call 'pure psychology'—the development of principles—but he was also interested in applications in some of the fields of applied psychology, especially in the field of political psychology. Before Aristotle, the Sophists were giving instruction on the subject that lately has been called *How to Make Friends and Influence People*. Long before the Sophists ap-

peared, the priests of the god of healing, Asklepios, were giving treatment to patients who were mentally maladjusted, as well as to patients suffering from physical diseases.

In modern periods psychology has been applied to so many phases of civilized life that it is impossible for any one person to become competent in the whole range of applications. The growing tendency, accordingly, is to split the field into a number of subfields, in each of which a psychologist who specializes in that subdivision may hope to attain to competence.

2. Subfields of Applied Psychology

Some of the more important subfields of applied psychology may be listed and discussed briefly for the purposes of explaining the limitations of this course. The main subdivisions of the total field of applied psychology, as commonly named, are (a) educational psychology; (b) psychology of infancy and early childhood, commonly listed as 'child psychology'; (c) medical psychology, otherwise called 'psychotherapy'; (d) abnormal psychology; (e) psychology of marriage and marital relations; (f) commercial and industrial psychology, sometimes called 'business psychology'; (g) psychology of art and art appreciation, otherwise called 'psychological esthetics'; (h) psychology of religion; (i) psychology of morals or ethics; (j) psychology of law and law enforcement, often designated as 'legal psychology.'

These are sample subfields. In addition we find books written and courses offered in the psychology of adolescence and various other topics, such as psychology of government, usually designated as 'political psychology.' Few problems of human life or conduct lie in only one of these subfields, hence the problem for the specialist in any field is not so simple as it might seem. Some of the subdivisions might seem, from a superficial point of view, to be included in one of the other divisions. The main problem of educational

psychology, for example, is, or should be, the problem of learning; hence it might seem that the problems of infancy and early childhood should be included in the first division. No one person, however, can be competent in the first topic and also in the second. The rapid development of applications of psychology to the second topic has been due to the experimentally trained psychologists who have concentrated their work in that division, while having less concern with learning for the periods of adolescent youth and adult life.

The lack of comparable progress in educational psychology has been due to fewness of experimentally trained psychologists who have worked in that division of the field. There is great need for psychologists in that division to save it from 'armchair' educators.

The psychology applied in the medical field has been almost entirely popular psychology of a sadly antiquated type. The progress that was expected a generation ago to be a resultant of cooperation of psychologists and physicians was thwarted by the rise of psychoanalysis, which is based on ancient popular superstitions. Cooperation of psychologists and physicians has recommenced, however; and this cooperation is essential for the protection of the public from quacks within the medical profession and quacks outside that profession. It is impossible for a psychologist who acquires competence in the applications of psychology to the remedy and prevention of mentally maladjusted conditions to become competent also in physical medicine. Human life is too short for the dual acquisition, hence cooperation of psychologists and physicians is essential. In theory, psychiatrists are trained in both physical medicine and psychology; but psychiatrists in private practice ('commercial' psychiatrists) are too much given to the ignoring of physical (organic) factors of the patient, although psychiatrists in the larger institutions for the 'psychopathic' patients

continue to pay full attention to the organic factors, as did all psychiatrists before the advent of psychoanalysis.

The remedying of family maladjusted conditions, and the prevention of family conditions of that sort through the dissemination of sound psychological information to individuals before they marry, is a subfield of applications in which experimentally trained psychologists who have undertaken the necessary specialization have rendered signal service. More application of scientific psychology is necessary in this subfield to protect the public from quacks who 'advise' the public—racketeers who have few qualifications for the work they undertake and whose erroneous advice makes trouble for the psychologists.

The subfield of legal psychology has been little cultivated by psychologists. The making and enforcing of laws still remains a crude art, almost inappreciably tinctured with science. Commercial and industrial applications have been made increasingly, but this subfield suffers from the lack of adequately trained psychologists and from the increasing number of quacks—opportunists without adequate training in scientific psychology. A person doing work in this field needs not only sound training in psychology, including experimental psychology, but also experience in the business world. I have been asked to give advice concerning adjustment in business situations, but I refrain from this because my business experience lies too far back in the past and business situations change rapidly.

Applications of psychology to the fine arts are still in the exploratory stage. The requirements for competent psychological work in this field are so severe that persons in the United States who are competent to apply psychology to even one of the fine arts can be counted on the fingers of one hand. For sound work in the field of music, for example, one must not only be trained in experimental psychology but must also be a performer of merit and skilled

in composition. So far as I know, there are only two men in the United States who are competent in the psychology of music. Application of psychology to the problems of painting likewise requires competence in the art of painting, as well as in psychology. I know of no persons who are competent in this way, here or abroad.

Applications have been made to the field of religion and its problems, but most of these attempts at application have been made by persons who were untrained in psychology and apparently ignorant of the problems of religion. For these reasons the disquisitions entitled "The Psychology of Religion" have been confined to a limited range of topics which fall in the category of the 'pathology of religion,' neglecting completely religion as a feature of normal human life.

Psychotherapy, abnormal psychology, and marriage constitute the topics with which we shall be mainly concerned here, for the problems and situations that most college students will meet later in life are mainly covered by these topics. Some problems on which we shall touch lie in the field of what is sometimes called 'social psychology' but is better designated as 'group psychology.'

In the limits of a small volume, we can deal only with a selected list of problems. Our selections will be based on the estimated importance of the problems, the probability that they will be encountered, and the interrelations of the problems with one another. Adjustment, in one of the meanings of the term, is a learning process; maladjustment also, in a comparable meaning, is a process of learning. In the other meanings of these terms, adjustment is a result of learning and maladjustment similarly is a result of learning. From either point of view, learning is the factor that produces a well-adjusted condition or a maladjusted condition. Therefore, after disposing of some preliminary topics, we shall discuss learning and its conditions.

We shall next consider a topic which is of especial importance to students, and in which I hope that you will be interested. This topic has been named in the past 'how to study,' but we shall not neglect the related topics 'why study' and 'what to study.' The presentation may be disappointing, since on many points we have to say, "We don't know." I shall not put before you much material from books on studying, because I am skeptical about most of the conventional materials on this topic.

The remainder of the volume will be devoted to the general topic 'how to avoid becoming maladjusted,' with some attention to the problem of overcoming minor neurotic maladjustment. For purposes of comparison we shall consider the various types of mental disorder and their conventional classification, from both the descriptive and the etiological points of view (etiological means 'pertaining to causes'), after which we shall pay especial attention to the types of disorder classed as neuroses and neurotic maladjustments.

As a preparation for the topic that will follow it, we shall then consider what is commonly called the 'sexual life.' The discussion will deal with psychological factors in the sex life, with only minor attention to anatomical and physiological details. From this we shall proceed to consideration of marital adjustment and maladjustment, with some attention to adequate selection of mates for marriage. For these topics we shall depend on the results of practical dealings with maladjusted persons. Philosophical speculations do not help; the application of armchair theories does more damage than does letting maladjusted persons alone.

To profit from the discussion of the topics throughout the course, one needs a grounding in elementary psychology, without which one would be as far adrift as are some of the racketeers who are counseling unfortunate people at present. While for the development of psychological principles for application, an extensive training in psychology

and long experience with maladjusted persons are essential, a grasp of the principles of elementary psychology may suffice (if you have such a grasp, which you may not) for an understanding of our discussion sufficient to enable you to protect yourselves and to protect your children.

After discussing marital adjustment and maladjustment, we shall consider the care and training of the infant and the young child—a topic that is closely related to the topic of marriage, as well as to many of the other topics listed. We shall next consider some maladjusted conditions and responses that are sometimes called ‘social’; and we shall finish with a discussion of psychoanalysis, its history and theories, and the damage done by its application.

It will be noted throughout that we approach the problems of adjustment and maladjustment from the negative point of view, indicating the conditions to be avoided and the ways of avoiding them. One might ask, “Why not approach the problems positively, and tell us how to be ‘well adjusted’?” The answer is that the negative approach is simpler and appears, so far, to be a successful one. There are many ways of being ‘well adjusted’; in fact, there are as many patterns of normal life as there are normal persons. On the other hand, there are a limited number of known patterns of maladjustment into which persons slip, and these patterns are fairly well defined in type. It is therefore more economical to point out the pitfalls and how to avoid them, than to attempt to outline the innumerable patterns of normal persons.

The various topics have been arranged in an order in which one naturally leads to the next, so that the presentation of one simplifies the presentation of that which follows.

3. Fundamental Terms and Concepts

In the foregoing discussions we have used certain ambiguous terms, with their equally ambiguous opposites.

These terms are *adjustment*, with its opposite, *maladjustment*; and *normal*, with its opposite, *abnormal*. Before proceeding further, we must decide just what we are to mean by these terms, for unless we make their meanings definite and adhere consistently to the meanings we adopt, we shall plunge into confusion.

The verb *to adjust* is quite unambiguous. To adjust something is to improve its relations with other things, to make it fit its circumstances, to cause it to fulfill better the requirements that are laid upon it. When you adjust the sheet of paper in your typewriter, you improve its spatial relations to the platen and the type bars. When your watch is adjusted, it is so changed that it keeps better time; its operation is fitted better into the period of rotation of the earth, which is the basis of our timing. So, when a person is adjusted, his responses, including his perceptions, feelings, thoughts, and conduct, are fitted better to each other and to his environment. The verb *to adjust* and its participial forms, *adjusting* and *adjusted*, are used with these meanings only. The verb *to maladjust* and its participial forms also are used in the single sense of lessening the adjustment of a thing or a person.

The abstract noun *adjustment* and its antonym *maladjustment* are both used in two senses.

A. *Adjustment* means, primarily, the process of adjusting or of being adjusted. If you say that you paid a mechanic a certain sum for the adjustment of the carburetor of your car, what you really mean is that you paid the man for adjusting it. If you say that the adjustment of a person suffering from a neurosis will be a difficult matter, you mean that the adjusting of the person will be difficult. If you use the term *readjustment* you will be, in a similar usage, referring to the process of readjusting the person. In a parallel usage, the term *maladjustment* means the process of maladjusting, of decreasing the fit of a person or thing or

process to other things. *Maladjustment*, in that sense, means the process of becoming maladjusted.

B. On the other hand, the term *maladjustment* is commonly applied to the result of the process of maladjusting, designating the maladjusted condition. When one says of another person, "He has a good adjustment to his environment," one means that the person is well adjusted, that he is in a good condition, which fits him to his environment, or *vice versa*. Maladjusted conditions are similarly designated as *maladjustments*. Thus, enuresis, stammering, and habitual violence of temper are called *maladjustments*. The use of these terms in two different ways—in the first sense to mean a process, and in the second sense to mean the result of the process—is merely a language habit and need cause no confusion. We shall speak of *maladjusted conditions* at times, and at other times call these conditions *maladjustments*, since the interchange of these terms indicates the meaning.

The ambiguity of the terms *normal* and *abnormal*, on the other hand, is no mere matter of language habits but is based on different concepts to which the terms are applied. Two of these concepts are important, and we must decide which we will adopt.

A. In the most common usage, *normal* means 'advantageous' or 'inescapable.' Thus, good health is normal because it is advantageous to a person; but death, although disadvantageous to human beings, is inescapable, and hence is the normal termination of life. The term *abnormal* customarily means 'disadvantageous' and usually 'remediable' or 'preventable.' Conditions that have been normal in past eras become abnormal eventually, because ways have been found for remedying or preventing the conditions which still remain disadvantageous. Increased dimness of vision with progressing age was once normal; it was disadvantageous, but nothing could be done about it. Invention of spectacles

and, recently, use of certain vitamins have remedied this condition and it is no longer normal. It was once normal for human beings to be afflicted with undulant fever, but pasteurization of milk now is a preventive. Short stature is disadvantageous to men—or they think it is—but if it is neither preventable nor remediable, it is normal. If the short stature is due to stunting by inadequate childhood diet, it is preventable and so abnormal.

Some human defects and deficiencies that are not remediable have been considered as abnormal because of their disadvantages, although not preventable or remediable. Cleft palate and club feet are among these abnormal conditions, and color blindness was considered as abnormal even before means of preventing and curing it were discovered. Death, however, which most persons consider the great disadvantage, is still considered as normal if not due to disease or injury.

B. The second concept of the normal is that of the *average*. If the trait can be measured for the whole group, or even if it can be estimated, the average measurement or estimated value is considered as the *norm* for the group, and those members of the group who deviate only within certain arbitrarily assigned limits from the group average are counted as normal; those who deviate beyond the limits set are considered to be abnormal in respect to the particular trait. The simplest illustration, and the one most frequently employed, is drawn from stature. If we measure the heights of a large group of college men and average the measurements, the average for the group is the norm or normal height for college men. The norm for college women, of course, would be different. It is true that persons deviating widely from the average stature for their sex are sometimes in a disadvantageous condition. They may be unduly conspicuous, for example. They may have trouble, if too tall, in sleeping in a Pullman berth. They may have to

stoop when going through doors. Their abnormal condition, therefore, is not due directly to mere deviation from the group average, but is due to the fact that accommodations are designed for persons of average stature.

Color blindness, according to this concept, is abnormal simply because it is a deviation from average color vision. Feeble-minded persons are abnormal because their intelligence deviates from the group norm. Insanity is abnormal because it seems that the population, on the average, is not insane. This concept of the normal and the abnormal has been widely acclaimed because it is 'objective.' Determination of normality and abnormality is indeed a relatively simple and easy matter on this basis, but the usefulness of the concept is not demonstrated and certain difficulties are outstanding.

a. Writers who adopt this concept in their theoretical definitions appear to forget the definition after a few pages and revert to the 'common sense' concept that we first explained. This shift indicates that there are difficulties which the writers cannot avoid.

b. A person who is abnormal in one group, as judged by group average, may be normal in another group. All depends on the group for which the average is determined.

c. Even on this basis, which is alleged to be objective, the line between the normal and the abnormal is drawn arbitrarily. If the average height for a group of males is five feet nine inches, is one of five feet eight and three-quarters abnormal in height? No, limits of deviation are set. The stature is not abnormal unless it deviates from the average stature more than a specified amount, which may be set, for example, as three inches. For color vision, limits must be set within which the color vision is normal and beyond which it is abnormal. These limits are usually in terms of the number of items missed on the color test. Similarly, for any traits or functions, limits must be set to

divide the normal from the abnormal. These limits may be determined by the practical factor of disadvantage, but often they are set arbitrarily. If the limits are determined by the practical disadvantage, as presumably is the case in determining how many items a person can miss and still be called normal, the purported average is abandoned as the norm. If the limits are set arbitrarily, the alleged objectivity of the determination is abandoned.

d. A difficulty that appears to upset the definition of the norm as the group average, even more than the difficulties just described, concerns the relation of deviations above the norm to deviations below the norm. For example: the average intelligence quotient for persons between the age of six and sixteen is assumed to be 100. If a deviation of 15 points is set as the limit of 'normal intelligence,' those with IQ's between 85 and 115 are normal; those below 85 are abnormal. Moreover, if an IQ of 80 indicates abnormality, an IQ of 120 also indicates abnormality. Writers who adopt the average as the norm, however, hesitate to be consistent on this point, preferring to designate persons abnormally high in intelligence as of 'superior intelligence' or as persons of 'genius.' Obviously, they still consider the normal to be the advantageous and yet assume that possession of intelligence above the average is an advantage. This latter assumption is invalid for many cases, but its invalidity is no reason for accepting the average as the norm. In a similar way, color vision well above the average is not called 'abnormal' but is called 'superior color vision.'

We may as well accept the fact that, however we define the normal, the line between normal and abnormal must be drawn in a practical way. While superior color vision is advantageous, an extraordinarily keen sense of smell is disadvantageous, since in our world unpleasant odors predominate over the pleasant; so a superior sense of smell is abnormal. Stature above six feet ten inches for a man may be disad-

vantageous, although we have never found such men who would be willing to reduce their stature, even by an inch. If the height is really disadvantageous, it is abnormal; but men who complain about their disadvantage of superior stature are usually boasting.

The inconsistencies and absurdities resulting from the definition of human norms as averages illustrate the confusion that is inevitable when we give a new definition to a term that has an established meaning, especially if the definition is of the pseudo-scientific 'armchair' sort. Inevitably, we slip back into the customary usages of the terms and commit logical fallacies. Norms, for human traits and human functions, are really practical ideals; that is, ideals that are deemed capable of attainment. Unless we recognize this fact, our dealings with human life and human progress are impractical. It would make no difference, for example, if we find that the average nutritional state of the population is poor. This state is abnormal, since it can be improved.

4. *Personal and Social Criteria of Maladjustment*

There are two criteria that we apply in the attempt to determine whether or not a person is maladjusted. One is the *personal criterion* and the other is the *social criterion*. Where we may speak of personal maladjustment and social maladjustment, what we really mean—or should mean—by these two terms is maladjustment as determined by the personal criterion and maladjustment as determined by the social criterion. By the personal criterion a person is maladjusted if his traits are disadvantageous to himself. By the social criterion he is maladjusted if his traits and behavior are disadvantageous to the social group, which may be the family group or a group of wider membership, such as the civic (political) group. We must bear in mind, however, that every maladjusted condition is primarily a personal matter, which can be remedied only by personal

treatment, although almost every maladjusted condition involves maladjustment to the social environment.

There may be maladjustments that are really, or primarily, maladjustments to the physical environment. This may be a condition resulting from physical disease or physical injury or from lack of knowledge and skill. The unskilled farmer who is unable to produce crops from his land may be said to be maladjusted to his environment, although he might be well adjusted to an environment of a different sort. His maladjustment, nevertheless, is primarily personal and can be remedied only by his learning how to farm.

Physical maladjustment may produce social maladjustment through interference with normal social relations, but if it is a temporary condition we do not speak of it as social maladjustment. If the condition is permanent or of long duration, the term may be applied.

Ordinarily we do not consider a person as maladjusted unless he is in some way a trouble to other persons; that is to say, unless he is maladjusted by the social criterion. Even the unskilled farmer is not considered as maladjusted unless he is unable to pay the bills he has incurred or is unable properly to care for his family, which then becomes a burden to other persons. The determination of maladjustment usually depends on whether or not something needs to be done about the person. A person seldom considers himself as maladjusted until he finds difficulty in maintaining his social relations, either in his business dealings with other persons or in the sort of social relations which, paradoxically, we call 'personal' relations.

5. *Needless Fears*

In our discussions of the topics with which we shall be concerned, we shall find it convenient to speak of 'abnormal persons,' 'abnormal mental processes,' 'abnormal behavior,' and 'abnormal traits.' By the term *abnormal person* we

mean one who is mentally disordered, although one suffering from a serious physical disease may also be said to be an abnormal person. A neurotic person, or one who is afflicted with a serious neurotic maladjustment, for example, is an abnormal person, and one suffering from typhoid fever may also be considered as abnormal.

An abnormal mental process is any of a long list, including illusion (wrong perception), hallucination (imagination passing for perception), delusion (false belief), and obsession (abnormal persistence of an idea). An abnormal trait is a *habit* of mental abnormality.

Abnormal mental processes, abnormal behavior, and abnormal traits appear as indicators of mental disorder and are called *symptoms* when they so appear. No mental disorder can be diagnosed from symptoms alone, since the same symptoms appear in disorders of various types; hence the descriptive diagnosis is based on patterns of symptoms, which are called *syndromes*. More important is the fact that all the abnormal processes and types of abnormal behavior that are symptoms of mental disorder occur also in normal persons, in which case they are not symptoms at all. Everyone, at times, has illusions and delusions; and hallucinations may occur in the lives of normal persons. Loss of memory is an important symptom in the syndromes of mental disorder, but everyone suffers from defective memory. A feeling that is inappropriate to the circumstances in which it occurs is an abnormal process that occurs in many syndromes; but normal persons have such abnormal affective processes from time to time.

Persons who, without proper preparation and orientation, read descriptions of syndromes of a particular mental disorder easily find in their own lives abnormal processes and mistake them for symptoms. Most of us, indeed, can discover in our mental traits and our behavior abnormal traits. After one has become familiar with these facts, the dis-

covery of an abnormal mental process or an abnormal trait is not alarming. Many persons, however, on finding in themselves what they ignorantly suppose to be symptoms of disorder, begin to worry about themselves; and some of them arrive at the fear that they are 'losing their minds' or 'going insane.' After they have the facts explained to them, they lose the fear.

An illustrative case is that of a young woman who consulted the author, inquiring if he could recommend a method of committing suicide that would not create scandal. He told her that he could recommend, at least, methods less messy than those commonly employed; but although suicide might be an excellent procedure for some persons, advice could not be given unless he knew whether or not suicide would be appropriate for her. When asked why she wanted to commit suicide, she replied that she had manic-depressive insanity and was becoming worse. She said she knew that eventually she would have to be put in an institution, and, since that would be humiliating to her parents, she thought she would make way with herself if it could be done inconspicuously. When asked who had diagnosed her case as manic-depressive insanity, she admitted that there had been no diagnosis, that she had been reading up on insanity of that type and found she had the typical symptoms. The next question was why she had read on that topic. She replied that a few years before she had taken a personality test in which she came out tagged with a certain letter, which was not explained to her. Later some friend told her that the letter meant manic-depressive insanity. After explanation of the test and its stupidity, with orientation as to the occurrence of abnormal processes in all normal persons, her fear was reduced, and she gave up the project of suicide. This is a typical case.

It is not remarkable that our mental mechanism is imperfect. The really remarkable thing is that, in spite of its imperfections, it operates as efficiently as it usually does. A normal person is not one who is 100 per cent normal in his processes and traits, for there is no such person. In the meantime, do not be surprised if you find in yourself a num-

ber of abnormal processes—and even an abnormal trait. If you have not found any such, it is because your attention has not been called to them. Some abnormal processes and traits can be materially reduced, to the benefit of your success in life; but none are necessarily symptoms of disorder or signs that you are ‘losing your mind.’ Persons who do go insane do not recognize their symptoms and so do not worry about them.

Fear of a condition that is thought to be hereditary is sometimes a cause of maladjustment. In popular superstitions about heredity, it is assumed that human traits are of two kinds: those produced by heredity and those produced by environment. When, in the nineteenth century, attempts were made to study the heredity of physical and mental traits of human beings, the studies were based on the popular theory of heredity. It was assumed that certain traits are inherited in a fatal way and that nothing can be done about such traits. Heredity and environment were considered to be two independent forces, which might cooperate with each other or might oppose each other. Grave attention was given to various human traits, with the purpose of determining whether a trait was hereditary or produced by environment. On the assumption that some traits are in part due to heredity and in part due to environment, certain traits were studied to determine what fraction or what percentage of the traits were due to heredity, and what percentages were due to environment. From the point of view of modern geneticists, such attempts are incredible. Modern psychologists and zoologists have abandoned the old superstitions about heredity; ¹ but they still remain in

¹ The first presentation of the modern theory of heredity was in the chapter on “Social Progress and Eugenics,” in the book called *Civilized Life*, by the present author, published in 1934. This conception of heredity has since been accepted by the leading geneticists, including some who ridiculed it when it was published.

popular literature, and in some textbooks, to afflict the public.

The disorders and defects—physical and mental—that have been considered in the past to be ‘inherited’ have been those for which the primary causes were unknown. When the causal pattern is discovered, the condition ceases to be called ‘hereditary.’ Tuberculosis and gout were among the diseases that were once assumed to be inherited, but knowledge of their causation has taken them off the list. There are some who still assume that diabetes may be inherited, for, although we know that it is a direct result of decreased production of insulin by the pancreas, we do not yet know what causes the abnormal condition of the pancreas. Organic psychoses are not considered to be inherited because their primary causes have been discovered; but some theorists assume that the ‘functional psychoses,’ whose causes are unknown, are ‘inherited.’ Some types of mental deficiency have causes that are known or are surmised; but cases of unknown causation were, a generation ago, supposed to be inherited.

It is admitted that a tendency to succumb to a disease may be inherited; that a person may inherit an ‘organic condition which makes him less able to resist a bacterial infection than are other persons. We say *may be* because we are not yet certain of the facts. The weakness or predisposition may be a product of social inheritance of dietary lacks, which, as we know, run in families from generation to generation. That tuberculosis runs in some families is admitted; how far faulty diets and other unhygienic factors are causes of this transmission and how far the infection of children by their parents is responsible cannot be determined, although in some cases both factors have operated.

The popular notion of the ‘heredity’ of abnormal traits and conditions, the causes of which are unknown, is that these conditions and traits are transmitted by zoological

heredity, not by heredity of the social sort; but zoological heredity cannot be demonstrated for any trait or condition until the possibility of social inheritance has been eliminated.

It is admitted by the old popular theory, and by the modern scientific theory as well, that a 'disposition'¹ from which an abnormal condition could be developed may be inherited by a person and that, even if the abnormal condition does not develop in the person, he can nevertheless transmit the disposition to his progeny. Here again we must say *may be*, for we cannot speak with finality. Concerning dispositions and their importance we shall have more to say shortly.

The occurrence of mental defect or disorder in a person's ancestry was formerly supposed to be a danger sign. The chance that the person would inherit the disposition, and that he might transmit it to his children, was assumed to be greater than for the person in whose family tree no such abnormalities had been discovered. This notion was confirmed, it was thought, by early studies of families in which feeble-mindedness had run for a number of generations and by studies of families in which mental disorder had run in a similar way. The soundness of these studies is no longer credited. They suffered from their selection of families in which the deficiencies or disorders had run, with no attention to other families not thus afflicted. There is as yet no evidence that a person from a family in which there has been mental disorder is more apt to develop the disorder than is one from a family in which the affliction has not yet appeared. As regards feeble-mindedness, surveys have shown that families in which there has been feeble-mindedness produce, on the average, no greater percentage of feeble-minded offspring than are produced in other families.

The ancient superstition nevertheless has disastrous effects on some young persons, especially on those who have discovered in themselves what they suppose to be symptoms

¹ The term 'disposition' is used here in place of a more technical term.

of mental disorder or of mental deficiency. Finding among their grandparents, great-grandparents, uncles and aunts, or other blood relations a few who have been low in intelligence or insane, or, more often, finding a few who have been described, by persons who were not experts, as having been 'dull-witted' or 'crazy,' these young persons become worried about themselves and may develop a neurotic maladjustment. Such fears have caused some persons to refrain from marriage lest they might transmit the 'taint' to their offspring. Others have suspected a taint in the persons they had planned to marry and have altered their matrimonial plans on that account. Superstitions that have bearings on vital features of life are dangerous and should be eliminated.

The occurrence on your family tree, or on the family tree of your prospective spouse, of persons who were of low mentality or of peculiar behavior—even of persons who have been competently adjudged feeble-minded or insane—need give you no concern. So far as we know, the probability that you or your spouse will beget children who will display similar abnormalities is no greater than it is for a person on whose family tree no abnormal persons have been discovered. It is probable that every tree, if completely searched through a number of generations, would be found to have produced some abnormal persons. Forget the bad tales about the Nams, the Jukes and the Kallikaks, and the family histories of epileptics, manic-depressives, and schizophrenics. These studies have no validity from the scientific point of view.

Low intelligence does indeed run in some families, but so do vegetarianism, noisy eating habits, and political affiliations. In some areas malaria used to 'run in families.' We ascribe these persistences to social heredity, not to zoological heredity; and there is no proof that mental abnormalities are inherited zoologically. Children may be predisposed to neurosis by the treatment they receive from the parents,

although neurotic parents do not necessarily beget neurotic children. But the social maladjustment of parents, resulting from their personal maladjustment, may produce similar results in their children. Parents who behave crazily or who express crazy ideas tend to train their children to behave and think in similar ways.

6. *The Scientific Theory of Heredity*

The scientific doctrine of heredity, approved by experts in the field of genetics, may be stated loosely in a single sentence: all traits and characteristics of the individual are inherited, and all traits and characteristics are produced by the environment. This statement applies equally to physical traits and characteristics and to mental traits and characteristics. A more accurate formulation is: no traits are inherited as such; but a factor which we may call a 'disposition' is inherited, and from the disposition a trait may be developed by the action of the environment. (In the environment, of course, we include diet and other hygienic or unhygienic factors.) The color of a child's hair and the color of his eyes are not passed on from parent to child as colors. A disposition is transmitted, from which a suitable environment may produce the hair color and the eye color. This development may occur *in utero* (in the prenatal life), but the child's hair color at birth does not indicate the color his hair will eventually be. The baby's eyes may be blue at birth and change in later childhood to some other color or pattern of colors; or they may be brown at birth and change to blue or a pattern including blue. The animal development begins *in utero* at the moment at which the ovum is fertilized, and it is apparent that some of the major features of the animal are fairly well determined in that prenatal period. The influence of heredity is established at fertilization and is not changed thereafter. All dispositions are included in the fertilized egg, but some traits due

to inherited dispositions do not develop until the person is well along in life.

Whether or not an abnormal trait is developed from a disposition that is of a normal type but is defective in some degree, or whether it develops from a disposition that under other environmental conditions might have given rise to a normal trait, we cannot always say; but probably both types of maldevelopment occur in different cases. In any event, the dispositions for the same trait are different in different individuals. In similar environments, two persons will develop differently. One may develop to a high level of intelligence, while another may attain only to a low level. In more favorable environment, both persons will attain to higher levels, but there will still be a difference between them. The inherited disposition seems to set a limit in each case for any particular environment.

With given dispositions, an individual will develop in one way in one environment, and in a different way in another environment. Unless an environment is provided that is minimally suitable, he will not develop at all—he will die. Death may occur immediately after the fertilization of the ovum if the uterine environment is not favorable; or death may occur at a later period of the fetal life or after the person's birth.

According to the scientific theory of heredity, traits such as musical ability, skill at billiards, skill in cookery, and all other 'special abilities' are inherited as truly as are arms and legs. That is to say, the person inherits a disposition from which the abilities may be produced by a suitable environment, which includes training to develop the skills; but diet and other hygienic factors also must be suitable. Since different persons subjected to similar environments, including similar courses of training, attain different levels of ability or skill, the notion that there are limiting differences in dispositions for the same trait is further confirmed.

As to the details of the transmission of dispositions from human parents to their offspring, our present information is slight. We have much information concerning heredity in fruit flies, protozoa, and some plant species; but inferences from plants and lower animals have not been useful. Some of the misleading material in textbooks has been based on such inferences and is now being withdrawn from the texts. Scientific investigation of human heredity has so far been confined to the field of embryology, but we may expect scientific investigation of further factors to get under way soon.

Your heredity certainly is important, for whatever traits you develop—whether normal or abnormal—are based on inherited dispositions. Your environment is equally important. For each person, in regard to any trait, there is a range of possibilities of development, and whether he attains the top of his possible range or remains near the bottom is determined by the environment to which he is subjected. It is probable that all persons are born with dispositions such that a suitable environment will produce in them sound minds and such that other environments will produce mental disorder. The degree of mental competence or mental incompetence will differ for different persons, under the same environmental conditions, according to the differences in limits of development established by the dispositions inherited. You are indeed a ‘child of heredity,’ but there is nothing fatal about that, for you are also a ‘child of environment.’ It is true that there are individual differences in abilities, but both heredity and environment figure in the creation of those differences. Unfortunately, we do not know, in respect to all individual differences, the extent to which the heredity is zoological and the extent to which it is social. It is possible, for example, that the reason for the persistence of recurrence of feeble-mindedness in certain families is inadequate diet in infancy, or more probably in

the prenatal period. Insufficiency of diet persists in some families generation after generation, particularly among the poverty-stricken and ignorant. Scientific investigations are required to settle the points we have raised and dubbed 'possibilities.'

7. Supplementary Facts Bearing on the Principles Set Forth

It is an encouraging sign of progress that some of the superstitions regarding the inheritance of particular defects or other traits have been recently upset. Two traits that have been much used in textbooks, until recently, as illustrations of simple Mendelian heredity, have been shown to be more complex in their heredity and can no longer be employed as illustrations. These are the old theories of the inheritance of eye color and of the inheritance of so-called 'color blindness.'

There has long been a popular superstition that eye color is transmitted from parent to child in an all-or-none way. This popular theory was accepted by earlier investigators of heredity and was fitted to their theories. The eye-color disposition was identified as a 'unit character,' which meant that the color was supposed to be transmitted as a unit. In Mendelian terms, two colors were further identified: brown as 'dominant' and blue as 'recessive.' The deduction, based on Mendel's work on peas and work of others on fruit flies, was that two blue-eyed parents could not have a brown-eyed child, since neither could transmit the disposition from which the dominant brown color develops. All this was done without careful examination of any human eyes.

If you do not know, you can imagine the anguish this caused to children rated as brown-eyed, both of whose parents were rated as blue-eyed. You might think that the child suspected that his mother had been 'indiscreet,' but the usual fear of the child, after being informed of the pseudo principle, has been that he is an adopted child. Now

there is no harm in letting a child know that he has been adopted, if the foster parents give him the information at a suitable age and in a suitable way; but uncertainty on the child's part is seriously disturbing and may lead to serious maladjustment.

Faced by the problems presented by brown-eyed children of blue-eyed parents, psychologists began to examine human eyes. They examined also the eyes of newborn babies to settle the question as to the neonatal eye color. The results were immediate and decisive. Eye color of human beings is not inherited in the all-or-none way as a unit character, but forms in the iris a mosaic pattern in which not merely two but a variety of colors appear. It is difficult to find in our mixed population a person with eyes of pure blue or mere brown. Some eyes, which to casual observation appear blue, really have greater areas of brown than of blue. We can now allay the doubts of any young brown-eyed person with blue-eyed parents by having him examine the parents' eyes in a good light with a reading glass. Even an adopted child will find enough brown in his parents' eyes to allay his fears. The actual principles of inheritance of human eye color still remain to be determined; but inferences to human beings from peas and fruit flies have not been helpful.

So-called 'color blindness' has been listed by earlier theorists as a 'sex-linked recessive trait.' This means, as textbooks used to explain, that while the disposition on which the defect is based is transmitted in both male and female lines, the abnormality does not develop in the female although she can transmit the disposition. Daughters of a color-blind man, according to this theory, would not be color blind, but their sons might be. Sons of a color-blind man could be color blind. If only the father transmits the disposition, some of his sons might be color blind while others might not be, since some of the dispositions inherited

come from the father and some from the mother; but if the mother also transmits the disposition, all sons will be color blind. This theory is due to the adoption by pseudo-geneticists of an old superstition that there are few, if any, color-blind women.

The color blindness referred to is not really blindness to color. Actual color blindness is so rare that only two or three cases have been reported, and we have reason to be skeptical about those reports. So-called 'color blindness' is difficulty in distinguishing certain reds from certain greens and grays. Psychologists have long been skeptical of the popular theory of color blindness as a sex-linked character, inherited as a unit disposition, for the following reasons: (a) The degree of difficulty in distinguishing the colors designated ranges from extreme difficulty up to as little difficulty as the normal eye finds, and upward to superior color discrimination. The gradation in degree is practically continuous, and this does not indicate an all-or-none inheritance. (b) When the same color tests are applied to groups of men and groups of women, the percentage of color-blind women found is practically the same as the percentage of color-blind men. There are some differences for certain age groups; and there are fewer women than men who have but slight difficulty, while there are more women than men who have difficulty of greater degree. The percentages in total are approximately equal.

The popular notion that there are few color-blind women, or none at all, is due to two facts. First, men have been widely tested for railroad and marine services, whereas women have not been tested in large numbers. Second, women avoid color tests if possible. A man who has doubts about his color vision wants to know; but a woman seems to consider deficiency in color vision as a stain on her character. (c) We view the theory of sex linkage of color blindness with suspicion, not only because we know that color-

blind women are as numerous as color-blind men, but because, even before we certified that fact, we possessed contradictory information. It is true that color blindness, in some cases, skips the female generation; but we have found color-blind mothers who had color-blind daughters and have found cases of color-blind grandmothers and granddaughters, the color defect skipping the intermediate male generation.

The data we have summarized aroused our hopes that color blindness might be cured and might be prevented. Three years ago, it was found by Dr. Loken at the University of California at Los Angeles that daily doses of vitamin A would in a few weeks improve the color vision of serious cases of color blindness. Later we found that, with increased dosage over a longer period, cases could really be cured. Injections of an extract of cobra venom, we found, accelerates the cure. We have stopped this research because the pure vitamin A is now unobtainable, and we know that a provitamin cannot be utilized by a color-blind person. However, if the case has been of long duration, degeneration of retinal elements has been produced, and such cases are incurable. The cause of so-called 'color blindness' appears to be a diet insufficient in animal proteins, which renders human beings incapable of utilizing provitamin A or even the pure vitamin.

The findings I have summarized do not prove that eye color and color blindness are not inherited. They merely prove that the inheritance of these traits does not follow the simple rules that were based on popular superstition and lack of scientific data. All traits develop from inherited dispositions, and all are produced by the environment. Some abnormal traits, such as color blindness, may be based on dispositions that are inherited by all human beings; but if an abnormal trait is curable and preventable, we cease to worry about its heredity.

*LEARNING**1. The Nature of Learning*

Learning may be described as the formation of a habit of response or of a habitual pattern of responses. Unlearning may be described as the elimination or breaking of a response habit that has previously been learned. Other terms may be employed in the descriptions. The word 'tendency' may be substituted for 'habit.' 'Learning' may be called 'acquisition.'

The learning process often involves unlearning. In forming a new habit, a conflicting habit may need to be eliminated. We can bring both processes under one formulation by describing them as changing the learner's habits of response or changing his response tendencies. This is sometimes described as the modification of responses, but in many cases it is the habit of response, not the response itself, which is modified.

Some learning indeed is the acquisition of ability to make a response that was previously impossible; but this is either the establishment of a new response or the improvement of an old response.

Modification of response habits may be useful, but sometimes the habit formed is detrimental. If a maladjustment has been acquired in early life, the acquisition was a learning process, and for readjustment the old habit must be eliminated. Readjustment is largely a process of breaking

habits that are detrimental to the individual or are objectionable to his associates.

2. Planned and Unplanned Learning

Learning may be planned by the learner himself, or it may be planned for him by other persons or another person. During infancy, the infant's learning is planned or should be planned by his parents. When the child enters school, his learning is planned by teachers and alleged 'experts' in education, and from the primary grade on the planning is for the most part done by those in control of the educational system.

Planning for the learning of other persons should not be autocratic, but should be of the nature of assistance in planning, which is conventionally called 'guidance.' The learner should participate in the planning, and the extent of participation should be increased progressively as the person develops from infancy to adult status.

Planning for another person may be open or may be concealed. In infancy, the learning is mainly of motor processes and control of motor processes; in other words, learning of skills. The infant is not aware of the purposes or objectives that are involved in the parents' planning. From childhood on, the learning is of habits of thinking and habits of perceiving, as well as of skills, and the person should be oriented in regard to the objectives of this learning and their importance.

Formal education, which is sometimes called 'schooling,' is not the only sort of planned learning. Informal education, which is often called, misleadingly, 'social education,' in which one learns from one's associates, is apt to be unplanned, but planning of informal learning is possible, and such planning is advisable. In other words, the associates from whom one will learn should be carefully chosen.

Vocational education is usually as formal and as much

planned as is the basic learning in the school grades or during the years in college. The apprentice to a trade has his work laid out for him, with consideration of the operations that he, as a novice, will be able to perform, and also with regard to the operations that will enable him to learn more advanced procedures. The student in a trade school or a technical school also has his learning planned for him as rigidly as it is planned for an apprentice. Professional training, in law, medicine, and other vocations, is, throughout its course, rigidly planned for the students by experts in the several professions, who are presumed to know the requirements the profession lays on those who practice it.

The main difference between the planned learning in infancy and that in later life is that, although the infant's learning must be planned carefully from the start, the infant does not know that his learning is planned. As the person advances in years and in learning, he finds that his learning program is planned. This knowledge is essential, and it is also essential that from childhood on he shall understand the objectives involved in the planning and the reasons for these objectives.

Unfortunately, the disposition to learn something planned for one by others, without knowing that it is deliberately planned, does not cease to operate, for most persons, when they emerge from childhood or even when they become adult. The presentation of a camouflaged learning program to youths and adults for the learning of beliefs, theories, and assumptions is conventionally called 'propaganda,' the rules for which are well known to psychologists. These rules, followed by advertisers and political propagandists, are based on the assumption that youths and adults can be treated as if they were children of tender years; unfortunately, the assumption is correct.

Since an intelligent adult must eventually plan his own learning, overdoing of planning for him in his childhood and

early youth by parents and others is a fatal mistake. The child must be allowed to participate in the planning, and this participation must increase year by year if he is to learn eventually to 'stand on his own feet.' Many failures in adult life are due in large part to a too rigid guidance in childhood and youth. On the other hand, lack of early guidance of a competent kind is also a fertile source of failure.

3. *Motivated and Unmotivated Learning*

Like other processes in human life, learning may be motivated or unmotivated. A motive may be defined broadly as a desire to attain some objective for which the attainment of a more immediate objective is necessary. One desires money; and so obtaining a job and working on the job are necessary. The desire for the pay is the motive for the obtaining of the job and for working on the job. The motive may not be monetary; a small boy of my acquaintance wanted to get a job so that he could avoid having to do housework. The motive for wanting a job was the desire to escape housework. Motives are usually arranged in chains. Why does one desire money? In order to purchase something, of course. Why does one want to be a physician? In some cases, to get fees; in others, to engage in a line of work that is interesting; in some cases, both motives appear.

Motivated activities—activities in which one engages in order to attain a further end, to satisfy a further desire—are commonly described as *work*. Unmotivated activities—activities that one carries on for their own sakes—are described as *play*. If one engages in a sport for the sake of the sport, it is play; if one engages in sport in order to obtain a reward it is hardly play, whether the reward be money, fame, or health. Children display unmotivated activity in its simplest form; but play is not exclusively an activity of chil-

dren, for adults do play, and their playing is not always of the infantile order. It is difficult to determine whether some adult activities are motivated or unmotivated. A collector of beer-bottle caps, for example, may be playing; but more often such a collector is motivated by the desire to have a collection that will impress other persons and gain attention from others. This is the desire that we call the 'desire for preeminence.'

Planned learning that the learner knows to be planned (in other words, learning-work), would seem to be motivated in all cases. The accomplishment of the learning may be an objective that is a step toward a further objective, desire of which is the motive for the work. This motive may generate desire to attain knowledge or skill that can be applied to the attainment of a further objective; or the motive may be merely the desire to satisfy a parent or an instructor and thus to avoid trouble. The infant has no motives for learning to talk or to walk. The infant's 'urge' to talk or to walk is conveniently called a *drive*. So far as we have evidence, none of the lower animals are motivated in their behavior; we do not ascribe motives to them, but only drives. In fact, the activities of normal adult human beings are mostly unmotivated, but are performed in a routine habitual way.

Motivated learning-work is conventionally described as *practice*, although sometimes it is described as *study*. It is assumed that in practice or study the learner has an idea of a response or a response pattern that he wishes to acquire or that someone else has planned that he shall acquire, and that this objective, or desire to attain it, motivates his work.

A *motive*, as we have described it, is a desire for an ulterior goal that generates desires for intermediate objectives that are essential for the achievement of the ulterior one. Since a desire is essentially a conscious response, to

speak of an 'unconscious desire' is not only confusing to the persons ignorant of psychology, but is an indication of ignorance on the part of one who uses the term.

It is to be emphasized that we are using the terms *motive* and *desire* exactly as they are used in common English speech; to use them in conflict with the common usage is a source of fallacy and confusion, since no one who arbitrarily redefines an established term ever sticks to his definition.

Motivated learning-work of certain sorts is described as *practice*, while motivated learning-work of another sort is called *study*. Normally, the learning is planned, either by the person himself or by someone who plans for him. Unplanned learning is not usually described as either practice or study. Since the learning processes that are important for persons above the age of early childhood are for the most part practice and study we need next to consider the achievements that are made possible by these two procedures.

4. *Learning of Skills and Learning of Knowledge*

A skill is a form of behavior, behavior of a particular sort, which we shall describe shortly. Behavior is a term of variable usage, but in the vernacular it is applied to terminal results of responses that have effects on the environment, either social or mechanical effects or both. Behavior, for the most part, is a pattern of action of the skeletal muscles. Sticking a pin through a piece of paper, for example, is an item of behavior; moving the ink bottle on your desk is another item. Glandular activity may also be behavior. If you shed tears on the letter you have written, that is a mechanical effect on the environment. If another person observes your weeping, the effect on that person is a social effect. Clenching your fists in anger may not directly alter your environment, mechanically; but it may produce an important change in your social environment.

Both perceptual responses and ideational responses may terminate in behavior, whether the responses are voluntary, nonvoluntary, or involuntary. If one thinks aloud, the action of the vocal organs produces results that are observable by others. Even if no sounds are produced, an expert is able to read your lips. Movements of the hands and shrugging of the shoulders are items of behavior in which perceptual and ideational responses often terminate. The perceptual responses of children are almost always behavioral, and their thought processes usually terminate in behavior.

The term *behavior* is not synonymous with the term *response*. A response includes everything that happens in the organism when it is stimulated. It includes the action of the receptors, the afferent nerve current, the neural processes in the lower and higher 'centers'; the pattern of efferent nerve current; and the terminal action patterns. Behavior includes only those parts of the terminal action pattern which produce a mechanical effect directly on the environment or which are observable to other persons. Every response, however, produces changes in the muscular and glandular tissues that are internal, not observable to other persons. These internal action patterns may, eventually, affect other persons or modify your behavior, but this indirect effect on the environment is not included in *behavior*, as the term is popularly applied. We propose to use the term in that way.

As we commonly use the term *skill*, it is applied to behavior which has two characteristics, namely, (a) it is routinized to such an extent that it is *dependable*; (b) it is *useful*, either for work or for play. Behavior that is not well routinized or that is not applicable to work or play is not ordinarily called skill.

Some skills are patterns of behavior that can be broken down into a number of fundamental skills. Billiard playing is a skill that involves skill in handling a cue; skill in mak-

ing a draw shot; skill in making a follow shot; skill in applying the 'English'; and several other skills. Normally, in learning to play billiards, the learner practices these several basic skills and then practices the combination of these into the total skill. The skill of the pianist is built up by practicing finger movements and other basic skills. *Practice* is the term conventionally applied to the procedure of acquiring or learning a skill.

At different stages in the acquisition of a skill, there are different degrees of efficiency in its application. We express these differences by describing individuals as having 'little skill' or 'great skill.' Sometimes we describe the person of little skill as 'unskilled'; but the application of this descriptive term does not imply that the person is totally devoid of the particular skill involved in the description.

A skill is always a behavior pattern that has been learned, whereas some terminal results of response that may well be called behavior are unlearned, being merely normal results of response. Blushing and sweating are examples of unlearned processes that in certain circumstances are behavior; that is to say, these activities constitute behavior insofar as they have effects on other persons, as they often do.

Knowledge is the ability to perceive correctly, or to think correctly, or both, and the procedure in learning knowledge is commonly called *study*. Study may be of books, or it may be of situations and events. Study is usually a planned procedure, and adequate planning makes study maximally productive.

Learning to think is based on perceiving. Although the old doctrine that nothing can be thought of which has not previously been perceived may not be completely true, there is certainly much truth in the doctrine. In school, one has learned that Columbus discovered America in 1492. One learns this through the perceptual processes of reading or hearing. Having learned this, one can later think it, either

by a thought response that may not eventuate in behavior or by a behavioral response that eventuates in speaking a sentence or phrase embodying the fact or that eventuates in writing. In the simple thinking that is called 'mere imagination' you cannot imagine anything that you have not perceived, although by 'constructive imagination' you may combine in a new content features of different contents of the past.

In most skill learning, some knowledge is involved. In acquiring skill in billiards, you learn the rules of the game and what is required in the various shots you must learn to make. In the acquisition of any skill, you learn the principles involved although the principles involved may be 'practical' rather than scientific. The skilled garage mechanic has knowledge of the practical sort, which enables him to diagnose the ailments of a car, and without that knowledge he would not be skillful. Ability to think adequately is essential to every skill. Conversely, skill in the application of principles is an aid to knowledge of the principles. Skill in laboratory work is an important aid in many sciences.

5. *The Uses of Learning*

Learning is engaged in for the attaining of various objectives, which are results of learning. These objectives, and the learning through which they are attained, fall into several categories or classes.

A. Learning for Performance. This is often called learning for repetition or for reproduction. It is the acquisition of a response potentiality that a person did not have previously. The child who could not walk learns to walk; a response pattern is learned for further use, by reproduction of the patterns of activity learned. When the youngster learns that Columbus discovered America, he learns to think something that he could not think previously. When he

learns to add and subtract, he learns something that he may apply to further mathematical learning as well as in the procedures of his daily life. Skills, which involve patterns of motor process, and knowledge, which involves responses of perceptual or ideational types, are learned for later use, for later making of the responses learned.

B. Learning for Recognition. Recognition may be perceptual or may be ideational, and the term does not always mean the same process for the two sorts of recognition. One says that he recognizes an object or an event when he merely identifies it; that is, perceives it by a response that he has learned to make by previous perception of objects of the same sort. Thus, one perceives a rose as a 'Red Radiance,' having seen roses of this variety before. This is mere identification, although it is based on discrimination, which is the ability to make to a rose of this variety a response different from the responses made to other roses. In many cases, the specific response terminates in the speaking of the correct name. Applying the term 'recognition' to this identification, or discriminative perception, is in accordance with the literal meaning of the term, cognizing *again*.

In other cases of perceptual recognition, the object or the event that is perceived is consciously identified with an object as one seen at some past time or as of the sort of object previously perceived. For example, you hear a voice and do not perceive it simply as the voice of such and such a person, which would be recognition in the first meaning of the term, but recognize it as the same voice you heard yesterday. The recognition in this case involves awareness of the past. The recognition may be definite as to the past time, or it may be indefinite, the voice being heard as one which had been heard at some indefinite time previously.

The 'pastness' in the perception may be fleeting, or it may be the factor that is maximally attended to. In some cases, the pastness is formal. Thus, in a laboratory experiment

on recognition the reactors may be shown several pictures or designs or be caused to hear several musical phrases. Then the pictures, designs, or phrases are given along with a number of similar items that the reactor has not seen or heard, and he is required to identify the items previously presented to him. This might seem to be an experiment in mere perception, into which the factor of pastness does not enter. On the other hand, the determination is not as to which of the items have been perceived at any time in the past and which the reactor has learned to perceive by making the specific perceptual response; it is a question as to which of the items had been perceived at a specific past time of presentation. Obviously this is a test of recognition in the second sense, a test of recognition of an extremely definite sort.

Perceptual recognition of this type reaches its maximal definiteness when the object or event is recognized not only as something perceived at a definite past time, but as something experienced in definite circumstances. You see a person not simply as one seen last Friday, but as one you met at the Blanks' party, in a certain house. It is true that such experiences may not be purely perceptual but may involve recognition in thought, which follows the perception.

Recognition of an object of which one thinks involves the factor of pastness; otherwise it should not be called 'recognition.' Merely thinking again of something previously thought of is not recognition. The term 'recognition' as applied to contents of thought has only the second of the two meanings in which the term is applied to contents of perception. It is true that the ability to think of anything is a product of learning, but learning to think of something does not always produce ability to recognize that of which one thinks.

Thinking of a content that is consciously past-dated is called *remembering* it. Abstractly, we call remembering

memory. This has been the meaning of the term *memory* in psychology from Aristotle to the present day, although some philosophers and zoologists have used the term loosely to designate any effects of experience that persist in the organism.

The psychological meaning of the term *memory* is the same as the meaning in common speech. When one says, "I remember this," or "I do not remember that," there is no implication that he may not be able to think of (that is, imagine) the item in question. Few persons would admit remembering a purple cow, but anyone might admit that he can imagine such an animal.

Remembering involves repetitive thinking, but it involves more than reproduction. The element of pastness is a feature of the thought content itself. Often one thinks of something without remembering it, and thinking of it again may develop into remembering it; but when one does eventually remember, the pastness is not the content of another thought following the first, but the pastness, or 'againness' as William James called it, is a feature of the total content of the thought of that which is remembered.

Memory is an important process in life, but it is not so important as you might suppose. For most purposes, mere imagination suffices, and complicating our responses by remembering is not only useless but disturbing. Suppose you are asked, "In what year did the Mayflower land in America, and where?" You cannot remember this landing, of course, for you were not there. You might remember that you learned about it by reading a certain book or by hearing a certain teacher tell about it, and this memory might be definite in its timing. Such memory would be exceptional and quite superfluous. All that is necessary is to think, by a response that may terminate in speaking or in writing, "1620, at Plymouth Rock," and that is what you do in such a case; you repeat a response that you have previously

learned to perform. In the infrequent cases in which memory enters into a thought response, the response is delayed. Sometimes the appropriate thought may be followed by memory. After responding correctly to the question about the Mayflower, you may remember, "I learned that from my history book in the seventh grade."

Throughout life, we learn a great number of thought responses and patterns of thought response, in school and out of school, which are important for our thinking and for our behavior. In repeating these responses and patterns, memory is seldom involved. Where memory is involved, it often causes confusion, although in exceptional cases it may help to clear up confusion. If your personal habits are well established, you do not have to remember where you put your hat when you need to get it. All that is necessary is to think of your hat as being in a certain place. Usually, indeed, the thought of 'my hat' is all that precedes your going to the right place and getting the hat. If, however, your hat is not in the right place, you may need to remember where you put it when you last came into the house. Such dragging in of a memory process may be efficient at times, but the need for it is an indication of your inefficiency.

Memory again may be useful for the avoidance of trouble. One tells the same joke to the same person several times or tells him an anecdote he previously told. Definite memory for preceding events would have prevented the *faux pas*. Some writers who have plagiarized the plots, ideas, or phrases of others have perhaps sinned through failure to remember the sources from which they derived the items. One well-known author, who obviously had read one of Tolstoy's stories, published a similar story, presumably without recognizing it, either indefinitely as a story previously read or definitely as a story of Tolstoy's.

In the field of perception, also, recognition is useful, prin-

cipally in cases in which learning has been incomplete or in which conflicting perceptual habits have been formed or when an established perceptual habit needs to be broken, temporarily or permanently. Most of the perceptions that we describe as recognition really do not involve recognition in the psychological sense. One hears an airplane going over; that is, one perceives a noise as the noise of an airplane, without remembering past noises of the same sort. One has formed the habit of perceiving certain noise as emanating from an airplane in flight, and memory is unnecessary. In case of doubt, memory may be useful.

The teller in the bank speaks your name as soon as you appear at his window. He does not need to remember you, to recognize you in the sense of past-dating you. He perceives you by the response of speaking your name. He may have thought your name before speaking it, but even for the thought no conscious reference to your past appearance is necessary, unless he has not yet learned to perceive you correctly.

Recognition, in the sense of past-dating, may be involved in the learning of perceptual responses, or of thought responses, but the learning process is complete only when reference to the past is unnecessary. At moments in which routine habits of perception and thought are not sufficient for the routine of life, past-dating may be useful again. Something is placed before you on a plate. You may perceive it as 'chocolate cake,' or you may not identify it at first, but then think 'chocolate cake.' You may then remember that in the past you ate a piece of similar cake, with pleasant or unpleasant results. The perceptual recognition or the memory may be important determiners of your further response to this piece of cake.

Memory, if not too abundant in its manifestations, may add pleasure to life, even if it is of no practical advantage. It supplies a basis for much social conversation. After lis-

tening to a rendering of one of Liszt's "Hungarian Rhapsodies," one remembers renderings by other orchestras or by the same orchestra and may remember renderings of other compositions by the same orchestras. Reverting to these memories may be entertaining, as may be the memories of other persons in regard to these or similar performances. A great part of social conversation appears to be a recounting of memories, comparing of memories, and evaluating items remembered.

On the other hand, memory is the basis for much that is unpleasant in life. Remorse and repentance, with other processes that are unpleasant and damaging, are built about things remembered. We suffer annoyances also from those of our associates who remember too much and who insist on recounting in detail the things they remember. Persons who recount the details of the motion pictures they have seen are especially annoying. The recollections of old-timers may be interesting, but they easily become boring. Whether, if memory were abolished entirely, humanity would be, on the whole, a gainer or a loser is a point that it is difficult to decide.

One of the striking illustrations of repetitive thinking devoid of recognition—thinking which is not remembering—is found in the condition known as 'retrograde amnesia.' A patient suffering from this condition may be unable to remember any feature of his past up to a certain date. He does not remember who he is or how he came to the place where his amnesia began. He is able to think of occurrences in his past life, but does not recognize them as having happened to him. Skills that he has acquired, such as the operation of a typewriter, writing, talking, playing the piano, are retained also. By application of psychological tests it is possible to cause him to think of enough features of his past life to furnish a clue to his identity. He thinks of matters drawn from his past experience, but does not re-

member them, does not identify them with his past life. His perceptions of events and of objects are determined by his past learning process, but the factor of 'pastness' is absent from the contents perceived. These cases make it clear that personal identity, for the person involved, is dependent on memory.

C. Learning for Further Learning. As has been indicated above, much of our learning, both of skills and of knowledge, is not for immediate application, but for the purpose of laying the foundation for further learning. The child learns to read and write in order that he may be able to go to school and study lessons. Learning the procedures of simple arithmetic is useful for immediate application, but it is also an indispensable basis for further progress in mathematics. In many learning processes, that which is learned may be both useful in itself, for immediate application, and a basis for further learning. Some learning, however, is a waste of time and energy, unless the results are capitalized for further learning. Proficiency in laboratory work is not an end in itself but is an important aid for further progress in the science for which the laboratory is provided. Perhaps the simplest illustration of learning that is useful directly and is also a basis for further learning is the child's learning to walk. Walking is useful, and it is also a basis for learning to run, hop, skip, and dance. On the other hand, the fluttering of the nestling birds' wings when the parent birds bring food is of no use in itself but is a means to learning to fly, which is useful.

D. Learning for Effects on Responses Other Than Those Practiced. It is to be assumed that no learning has results only on the skills practiced or the topics studied. It seems probable that no response tendency can be modified without modifying other response tendencies. The effects seem to be general, but so far we do not assume that they are actually general; modification of a response habit or the

building of a new response habit may safely be assumed to produce modification of certain other response habits even if not all habits are changed. Studying mathematics has its effects on the acquisition of knowledge in other school topics, although not so extensively as was once assumed. The child's learning to walk is not disconnected with his learning to talk or with his general learning ability. The acquisition of a maladjusted condition, by responding to unfortunate conditions imposed on a person, is a learning process that results in the learning of responses of the type that we describe as 'symptoms.' The effects of learning one thing on habits of other sorts may be described in terms of adaptation to conditions, 'emotional attitudes,' or 'personality,' but such description is not explanation. That such 'transfer' from one learning process to others occurs may be said to be due to a change in organic condition, but the effects are real, however they may be described.

The effects of responses on other responses is exemplified by practice procedures such as in dart throwing. The thrower, attempting to hit the bull's-eye, throws his darts wild, but these 'wrong' responses are essential for the ultimate production of 'right' responses. The thrower does not learn the wrong responses; he does not establish the habit of throwing wild, but through the wild throws he builds up, in the course of his practice, the habit of throwing more accurately. In learning any skill, the response made in practice is not the response that is learned. In knowledge learning, the effects of initial errors in increasing the probability of the correct responses are not so easily demonstrable but may be discerned through careful analysis.

E. Unlearning. Response habits that have been built up sometimes need to be eliminated by a process of unlearning. This is actually the substitution of a more advantageous habit of response for one that is disadvantageous, but except in the cases of young children the faulty habit usually

must be attacked directly. The readjustment of a maladjusted person often needs the application of this treatment, of which we shall have more to say as we go on.

6. *The Factors Involved in Learning*

It was assumed a generation ago that repetition of a response made to a certain stimulus pattern increases the probability that the response will be repeated when the same pattern of stimulation, or a pattern similar in essential details, recurs. This assumption was assumed to be sufficient for the explanation of learning and was the foundation of the 'brain-path' and the 'synapse' theories of learning. It may be admitted that what might loosely be called 'learning' does occur through simple repetition. The hypothesis, however, does not explain the learning of a new response, and the hypothesis is not in favor today.

We have indicated that 'wrong' responses contribute to the learning to make the 'right' response. Laboratory experiments in learning have given results that demonstrate this fact. William James once said that experimental psychology is the "elaboration of the obvious." A better phrase would be: the elaboration of what should have been obvious. From features of life that are easily observable, it should have been obvious, but evidently was not obvious to those who accepted the simple repetition theory of learning, that the making of specific responses more often produces the habit of making other responses than of making the 'same' response. We have described the effects of responses made in learning to throw darts at a target, and certain other familiar learning processes are relevant to our problem.

In learning to make correct billiard shots, the beginner makes mostly incorrect shots at first, shots in which the behavior patterns of the controlling muscles are quite different from the patterns that will be involved after he has learned the correct responses. Nevertheless, it is through

the practice, which includes the making of these wrong shots, that he learns to shoot correctly. In the acquisition of any skill, there is a continuous modification of the motor patterns involved in the practice; and if the motor patterns change, evidently the responses must be admitted to be different.

In learning to walk, the infant wobbles unsteadily on his legs and makes many irrelevant movements. Learning to make a response by making the response is conspicuously absent from the infant's acquisition in the early stages. He could not learn to walk by walking until he had learned to walk. Even before attempting to walk, the infant has begun to learn to walk by making responses that involve motor patterns of the legs, trunk, and arms. Failure to take these processes into account has been responsible for the confused notion that the child's motor acquisitions are due to the operation of a mysterious force called 'instinct' and the equally confused notion that the learning is the mysterious result of 'maturation.'

The lifting and fluttering of the wings by the young bird in the nest when the parent bird approaches with food for the nestling are responses that are not reproduced after the bird ceases to be a nestling. These flutterings are processes in the bird's learning to fly, and eventually the bird, if thrown in the air at the proper stage in the learning process, will fly somewhat crudely. He will not fall but will flutter down to the ground. From that stage on, his learning proceeds by further flying, clumsily at first; but through wrong responses he learns to fly successfully.

In order to understand the learning process it is necessary to analyze the factors in response. Some responses terminate in *behavior*, and the behavior result may be a skill; but in learning behavior, whether it is or is not skill, the behavior is not the only factor of importance. A response involved in the learning process involves *thinking* and *feel-*

ing, whether the learning is of skill or of knowledge. These two features, which are analytically distinguishable in responses, are highly influential and are the factors that determine whether the making of the response will increase or decrease the probability of repetition.

For human beings beyond early childhood, the thinking that determines learning is of two sorts, anticipatory thinking and retrospective thinking (remembering). As to the thinking of the infant and of the child of tender years, we are not certain. Whether or not birds and other species of the lower animals think in the anticipatory and retrospective ways, no one knows with certainty. Since, however, the responses of the lower animals are no more complicated than are the human responses that involve no anticipation and no memory, we are justified in assuming that the lower animals are restricted in their thinking to what we call 'simple imagination.'

It is to be admitted, however, that, for the infant and the lower animals, the affective factors involved in response are highly important. In the human being from the later stage of childhood on, an affective factor that is important for learning is combined with anticipatory thinking in the process of *desire*. The affect or affects of satisfaction, which occur when success is achieved, and the affect or affects of dissatisfaction over failure, are admittedly influential.

Further thinking, which comes under the heading of *judgment* or which may be called estimation of success or failure, is influential in learning both by giving information on possible changes in response for its improvement and by producing satisfaction or dissatisfaction, as the case may be. The thrower of darts, for example, makes slower progress, if any, if he is prevented from seeing where in the target his darts land. While thinking during a response is disturbing, thinking between responses is an important aid to learning; in fact, is almost indispensable.

If a response habit is to be learned, or if a response pattern is to be made habitual, it is essential that the learner shall have an idea of the response that is to be achieved or shall have an idea of the change in the environment that the response will produce. The learner must further desire to achieve the response of which he thinks or to produce the results of the response. If one desires to learn the technique of patting the scalp rhythmically with the right hand, while rubbing the left hand on the stomach with a continuous circular motion (a response that is not easily achieved), the thought of the arm and hand movements will suffice, although the results of the movements in tactual stimulation may also be effective as thought contents. In throwing darts, on the other hand, the useful thought is of the bull's-eye in which one desires the dart to land or of the landing of the dart in the bull's-eye, the thinking of the behavior involved being usually disturbing to the learning. The important factor in learning, in short, is the thought of an objective to be attained, either as a specific behavior pattern or as the result of the behavior, together with a desire for the attainment of the objective.

Although it is possible that in some instances learning may proceed with merely a thought of an objective, with no desire to attain it, these certainly would be exceptional instances, and for effective learning, the desire to attain the objective, to learn to make the response of which one thinks, is usually essential. For elimination of a response habit, the same conditions obtain. One must have a definite idea of the response involved in the habit to be eliminated and a desire for its elimination.

The considerations above presented give a foundation for the explanation of two facts that otherwise are inexplicable. First, that a response habit acquired is not simply a tendency to repeat a response to the stimulation pattern from which it originally developed, but is a habit which, once

acquired, may be varied according to circumstances. Second, that mere repetition of the behavior involved in a response may maintain a habit at the level of success previously attained, although further improvement will not be produced. If one has learned to dive, in accordance with a standard one has set for oneself, the habit will be maintained at that level by frequent repetition of the dive. The thought factors and the affective factors may vary from dive to dive, the only essentials being the thought of diving and the desire to dive. Such procedure is not learning a habit, but merely maintenance of a habit.

7. Retention and Its Varieties

We learn to make responses and form response habits by making responses. The responses made today have been determined, in large part, by the responses made yesterday, last week, last month, last year, and throughout past life. In principle, every response has effects on all further responses, and although in some instances a response has effects so slight as to be negligible, in other cases a single response may have effects that persist, demonstrably, for a long period of time. If the effects of a response are slight, repetition of the response or of other responses may produce demonstrable effects.

It is evident, accordingly, that some effect or result of a response persists in the organism. Such effects are commonly assumed to be in the nervous system; often it is assumed to be a modification of cerebral cells, but that the cerebral neurons bear the entire responsibility is not certain. If the entire brain, including the cerebellum and the brain stem, are assigned as the loci of the changes produced by responses, the assumption becomes more plausible, although it is possible that some learning effects persist in the spinal centers, in the medulla, and in the pons.

This persistence, somewhere in the nervous system, of

the effects of responses is conventionally called *retention*. Various theories of retention have been proposed by philosophers and by physiologists, but psychologists have for the most part refrained from theorizing about retention, being satisfied with formulations that merely express the indubitable facts.

One theory ascribes retention to the 'soul,' but this theory is quite unsatisfactory. The soul, which is thus dragged in as a *deus ex machina*, is nothing but another name for something in which the retention occurs, a something quite comparable to the unknown quantity x of the mathematician.

Another theory, which is similar to the soul hypothesis and which is equally unsatisfactory, assigns retention to the 'unconscious mind,' which is merely another name for the unknown x . This theory, in fact, is even less acceptable than the soul theory, because while no psychologist would deny, as a psychologist, the existences of one or more of the various entities called 'souls' but merely rejects all 'souls' as explanatory principles, no sound psychologist can admit even the existence of the mystic 'unconscious mind.'

A third theory, of long standing, accepted in especial by philosophers and physiologists who assign the function of retention to the cerebrum exclusively, is the 'engram' theory. The term 'engram' (which means literally 'written in') is not much used today, but the theory, aside from the term, persists. According to this theory, modifications are made in the individual cerebral neurons, and the persistence of these modifications in the neurons is retention.

A fourth theory is the reformulation of the old 'brain-path' theory in terms of the neuron theory, putting the retention in the synapses between neurons, presumably between cerebral neurons. Each time a neural discharge passes over a certain route, the synapses in that route are made more permeable and the tendency for a subsequent discharge

from a similar stimulus pattern to follow the same route is increased.

The synapse theory accords somewhat better with the facts than does the engram theory and agrees with the modern assumption that retention is a function not of individual neurons but of the cooperative function of the cells of the nervous centers acting integratively. The theory, however, is unacceptable, since it is evident that in different responses the same routes of discharge are utilized and an established permeability of the synapses would prevent any change. Evidently, the conditions in the brain during a response are far more complex than the synapse theory contemplates.

Aside from the conviction that retention is a matter of integrative changes in the group action of cells in the nervous centers and that response changes or may change the integration tendencies, psychologists generally refuse to accept any theory as to the physiological basis of retention.

We prefer to describe retention more abstractly as a *probability*, established by past responses, that further responses will differ from the earlier responses in certain ways. This is merely a statement of facts that are demonstrable, and so we are on sure ground. The change in response habits produced by practice and study are demonstrable and are predictable within limits. The building of a new habit of response, then, is to be described as a progressive increase in the probability that responses of a certain type will occur to a specified pattern of stimulation. The elimination of a response habit, correspondingly, is the progressive decrease in the probability of a response of a specified type. In some cases, of positive learning, of course, the probability is only that the response will approximate progressively to the response that is the objective. The dart thrower cannot be predicted to throw the dart into the bull's-eye, but we can predict that he will, with increasing practice, come progres-

sively closer to the mark or that his average throw will increase in accuracy. However we formulate our prediction, it is always in terms of probability, and the increase or decrease in the probability can be demonstrated and predicted.

The several kinds of retention are partially indicated by the several types of learning we have described, although there is one kind of retention that is not determined completely by the results of the several sorts of objectives in the learning processes. We may list the kinds of retention as (*a*) retention for reproduction or repetition; (*b*) retention for perceptual recognition; (*c*) retention for memory; (*d*) retention for further learning; (*e*) retention effects on other responses; (*f*) retention for relearning.

These several sorts of retention are often assumed to be identical. 'Retention is retention' is a suitable formulation of this theory. The theory that all retention is the same retention is consonant with the engram theory and is not in obvious conflict with the brain-path theory or the synapse theory. When we compare it with the facts of retention as 'probabilities of response,' the discrepancy is apparent.

A learning process may establish one probability for one sort of retention and quite different probabilities for retention of other sorts. Laboratory experiments establish this fact, but observations in practical life serve the purpose so well that we need not 'elaborate the obvious.'

Everyone knows that after reading over a statement he may not be able to repeat the words but may recognize the statement if he sees it again. A high probability for perceptual recognition has been established, with a low probability or no probability for repetition. The cases of unintentional plagiarism to which we referred show that there may be a strong probability of repetition with low probability of memoric recognition. Everyone knows also that an item or a system of items for which retention has dropped practically to zero insofar as reproductive retention is concerned can be

relearned with less labor and in less time than were required for the original learning. A person who once knew how to extract the cube root of a number, but has 'forgotten' how to go about it, can 'pick it up' again easily. Items that cannot be perceptually recognized can be recognized after a slight amount of perceptual relearning. In short, retention for relearning may be fairly high, while retention of other sorts may have dropped to zero.

It is unfortunate that psychologists in the past have assumed that measurement of retention for relearning measures retention of all sorts. The facts of common experience demonstrate the fallacy of that assumption. Experimental psychology, by its procedures in the laboratory, verifies by its results the observations that are more easily made in daily life. Every discrepancy we have mentioned between the various sorts of retention has been verified in the laboratory.

Retention for further learning is not measured adequately by measurement of repetition-retention or recognition-retention. Examinations of the essay type measure, roughly, repetition-retention, while those of the true-false type measure recognition-retention, but neither type gives a sound indication of retention for further learning. Grades are assigned in courses on the basis of the scores made in quizzes, but what do the grades mean? At best, they indicate only the retention of the sort that the quizzes test. Whether or not the combination of recognition test with reproduction tests gives a better basis for evaluation is an open question. No teacher of experience assumes that students who have attained to the higher grades in an elementary course in a subject have acquired better foundations for work in more advanced courses in the subject than have those who have received somewhat lower grades. Often a student who has made a grade average between

A and B as an undergraduate is a complete flop as a graduate student.

Retention of effects of practice and study on responses that were not involved in the learning is more difficult to estimate or measure than are retentions of other sorts, except in laboratory experiments, but we have no ground for assuming that it can be measured by measurement of retention of any other sort. Actual retention—the probability of response of a specific sort—can be measured readily by determining the responses that can actually be made, except, as we have said, for retention of effects on other responses; but such measurements determine retention only of the sorts measured and are not valid indications of retentions of other sorts.

The engram theory of retention, and the other theories that follow its general pattern without the use of the term 'engram'—which may well be called pseudophysiological theories, since there is not a shred of actual physiological evidence for them—may be given credit for being able to establish, on theoretical grounds, a connection between relearning-retention and reproduction-retention and even with retention for further learning of the same response habit. The engram is first 'written in' lightly, and by further responses the 'writing in' is deepened, until eventually reproduction is possible. With the lapse of time, the 'writing' fades, and reproduction becomes impossible. The faded 'writing,' however, may be restored by further learning, to the point at which reproduction is possible, more easily and quickly than it was first engraved. The scheme is simply that of more or less—more or less depth of the engram or more or less permeability of brain paths.

The more-or-less scheme, however, does not take into account the fact that there may be high retention for recognition with low retention for reproduction, and vice versa,

which is not a matter of more or less. So recognition-retention is ignored!

8. *Association*

Learning is not wholly a matter of acquiring new responses and of modifying habits of making specific responses. An important part of learning is the linking of thoughts together and the linking of thoughts and perceptions. This linking process is commonly called *association*, a term to which psychologists still adhere, although in the argot of physiologists the term *conditioning* has been substituted. The two terms *association* and *conditioning* are partially synonymous, but the long-established term *association* is preferable.

The term *associative learning* has an application that is wider than that of the term *association*. It includes not only the linking of ideas together and the linking of ideas to percepts, but also the modification of perceptual responses by combination of stimulus patterns. In psychological usage, this latter process has long been designated as *paired association*. The linking of ideas together is designated as *serial association*, and the same term is sometimes applied to the linking of an idea to a percept. We shall consider serial association first.

If two thoughts have been associated, either by their having occurred in succession previously or by an analytic procedure of thinking that establishes a definite relation between the contents of the two thoughts, the occurrence of one of the thoughts may result in the occurrence of the other. If a perception has been linked in a similar way with a thought content, the occurrence of the perception may bring about the recurrence of the thought. The process in either case is commonly known as *recall*, which does not necessarily imply memory, although memory may be involved.

If two thoughts have been associated, the recurrence of

one may cause the recurrence of the other, even if in the formation of the association the thought recalled by another may have preceded the thought that recalls it. In association of a perception and a thought, the recurrence of the perception may cause the thought to recur, but of course the thought cannot recall the perception, except as an hallucination.

Thought contents may, however, be linked in a definite serial order, so that thought of the first content recalls the second, thought of the second recalls the third, and so on through the series. Linking thoughts together in this way is a conventional procedure in experimental work on association.

Recall is normally dependent on associations previously formed and can occur in no other way. Hence, in learning to think, two types of learning are required. One must learn to make a given thought response, and the thought, or its contents, must be associated with one or more other thoughts. Since we describe retention in all cases in terms of probability of response, it is clear that association is essential for retention of a thought response, for the response will not recur except through the recall by a response associated with it. In normal learning, the acquisition of a thought response and its association with other responses proceed together.

Serial association and paired association are not so different as they might superficially appear to be. Paired association may be illustrated by an experimental procedure often employed in laboratory work. A set of colored paper disks or squares may be presented, each with a geometrical form—a circle, a diamond, a star, an ellipse, and so on. After several presentations, the presentation of one of the forms will cause the reactor to think of the corresponding color, or the presentation of a color will cause him to think of the corresponding form. Evidence of the correct or in-

correct recall is given by the reactor's speaking or writing the name of the item recalled. He thinks of the item by speaking its name, by writing its name, or by drawing the geometrical form. The associations are formed perceptually, but, in learning to perceive an item, he learns to think of it and to recall it. The range of items that can be paired is wide. Musical notes may be paired with colors, letters, or numbers. Musical themes or fragments may be paired with other items.

Learning to identify an object or an event is obviously an acquisition made through paired association. A new flower is seen with its name heard or read, and thereafter, or after a sufficient number of such presentations, the name can be thought of when the flower is again seen. The smell or even the sight of food previously found 'appetizing' will cause a flow of saliva, because one has associated the smell and the sight with the taste, which originally causes the salivary flow. From that point on, the further associative learning is simple. By repeatedly presenting a food to vision while a sound stimulation is administered, the stage will be reached at which the sound alone will produce salivation. This is one of the techniques employed in the associative process called 'conditioning.'

So-called 'conditioning' follows the pattern of all learning; the practice responses are not the responses learned. The practice responses are made to a total stimulus pattern, and through these responses the reactor learns to make a response to a part of the original pattern of stimulation. The stimulation that originally was responsible for the initiation of the response is eventually replaced by another stimulation, which originally did not, by itself, produce the specific response. In the psychological illustration we presented above, there is a double substitution; either part of the combined stimulus pattern, either of the two items paired, may produce the response that initially the other

stimulus alone produced. In the conditioning experiments conducted by physiologists no attention is paid to this possibility. If by presentation of a food item paired with a sound, the dog learns to salivate when the sound alone is presented, what has happened to the normal result of the sound stimulation? Will the dog prick up his ears, or show the normal result of the sound stimulation, when the food item is shown him? No interest has been taken by the physiologists in that problem. The food item is called the 'unconditioned stimulus,' and the response thereto is called the 'unconditioned response,' while the eventual salivary response to the sound is called the 'conditioned response.' In reality, there are two unconditioned responses, one to the sound and one to the food seen. These responses, of course, are only relatively unconditioned, since the dog or other animal 'conditioned' has previously learned to make both of them.

Since, in human cases, paired association works both ways, either of the paired stimulations eventually producing the response that originally was produced by the other, the determination whether or not the same principle applies to the lower animals is important. It is true that in human learning the purpose of the learner is determinative. If the learner by paired association knows which of the two stimulus patterns will be presented later for identification, he will learn to make the response required more easily than he will learn to make the other response. Does the dog know what will be required of him? Well, after repetition of the paired presentations and tests by presentation of one of the two, he may know. The questions should be settled, and a basis for the settlement can be laid by finding what happens to both of the so-called 'unconditioned' responses involved in the paired association.

9. *Applications of Principles of Learning*

Principles derived from extensive study of the learning processes cannot be applied easily to particular learning processes. For each learning problem there are specific factors which must be taken into account in applying the principles. Not only does skill learning involve techniques different from those in knowledge learning, but different skills are learned somewhat differently and in different topics of knowledge the procedures are different. Mathematics, for example, must be studied in one way and history in a different way.

Here we can describe merely the more general conditions of learning, although certain specific problems will be considered in the following chapter.

A. The Purpose of the Learning. A purpose, as we shall explain more fully later, is an objective that is a content of thought and includes, for best results, desire to attain the objective. We may learn for brief retention or for retention over a longer period. In some practical conditions, learning that produces retention for more than a brief period may be useless, even damaging; while in other conditions, learning for long-time retention is essential. A conductor on a local railroad train, on which travel is heavy, collects tickets from all passengers when the train leaves its starting point. Thereafter when collecting tickets he must distinguish the passengers whose tickets have been collected from new passengers taken aboard at way stations. New passengers must be identified, and their tickets taken; but passengers whose tickets have previously been collected are annoyed if asked again for tickets. Memory is not necessary, and perceptual recognition, in the sense of past dating, is not required. The conductor, however, must learn by once collecting a ticket to perceive the passenger as 'paid.' At the end of the run, this retention is no longer useful and if

carried over to the next day's trip would be a source of confusion. Railroad conductors become highly efficient in this learning for short-time retention.

The teller in a bank, on the other hand, must learn the names and signatures of the customers and associate them with the customers as visually perceived. Here, also, memory is unnecessary, accuracy of perception being all that is required. A skilled teller will perceive a person correctly even if he has not appeared at the teller's window for several months. The teller, before being promoted to his job, has worked 'behind the cages,' that is, in keeping accounts, for some time previously, so he has learned the names of most of the customers. His job as teller is then to associate the visual percept of the customers with their names, a matter of paired association.

That practice is important for the bank teller is obvious. Whatever pattern of response the teller employs in successive perceptions of a customer, if he succeeds each time in making the correct perceptual response, he builds up eventually an automatic response, not requiring memory, which may have been involved in his initial perceptions.

The bank teller is assisted by the constant situation in which the customer appears; the customer is framed by the window, and the teller may perceive him correctly in that situation, while not recognizing him in other places. The railroad conductor has for his assistance a spatial pattern, in the seat positions, and the contiguity of the passengers to one another. If passengers shift their seats, the conductor may have difficulty in distinguishing the paid passengers from the unpaid.

The determining factor for these two contrasted forms of learning appears to be the different purposes of the learners. One knows what sort of retention is required and sets himself for learning in that way. The purposes, once established, are not reproduced in the learning process; if they

were so reproduced the learning would suffer. An objective, once given careful consideration, must be temporarily forgotten, in order that it may be effective.

Learning by a student may be of either the brief-retention or the long-retention sort. He may study merely for an examination, and, if he retains what he has learned until the examination is over, he may obtain a good grade, and then forget what he has studied. On the other hand, if he is interested in extending his knowledge as a basis for further learning, his studying will be different. 'Cramming' may serve the first purpose but not the second.

It might seem that in the learning that results in a maladjusted condition, purposes are not involved, but this appearance is fallacious. It is true that the person who becomes maladjusted does not have the purpose of becoming maladjusted; the purposes involved in such learning are purposes that are thwarted in various ways. The learning may well be considered as a form of 'negative practice,' in which the learner's practices are means to the attainment of objectives other than those he purposes. In the remedying of a maladjusted condition, however, even if negative practice is employed, the patient must have the objective of freeing himself from the maladjustment or of breaking a bad habit and must have the desire to achieve that objective.

B. Standards of Learning and Measurements of Retention. A standard of learning is a standard of retention, a standard of probability of a response or a response pattern of a specified type. The measurement of results of learning is in every case a measurement of retention. For learning for reproduction, the standard is ability to reproduce. One is said to have learned a poem, by one standard, when one can reel it off fluently. A skill has been acquired when one can perform the actions involved in the skill. Such standards are not always set at 100 per cent perfection; a lower standard is often set for experimental investigations of

learning. Obviously, the question whether one has learned an item or has not depends on the standard set. It should be clear that a standard for short-time learning, such as the repetition of a poem immediately after the last reading of it, can give no prognosis for retention for a longer period.

The status of retention for reproduction may be determined for any period by tests that reveal what percentage of what was presumably learned can be reproduced. Retention for recognition can be measured by the accuracy with which the items presumably learned can be recognized. Associative retention can be tested by determining the extent to which items associated can be recalled. Such tests, of course, can be for brief or for long-time retention. For other sorts of retention—retention for further learning and retention of effects of practice responses on other responses—measurement is more difficult and techniques of measurement have not been standardized.

Since college grades are based on examinations that measure only short-time recognition-retention or reproductive-retention, and measure these retentions only for the items included in the examinations, we know that the grades give poor indications of achievement of more important sorts and are invalid for prediction of further achievement even in the same lines of study. One student who made a C in a course may actually have achieved more than another who made an A. Statistically, the average achievement of 500 A students will be higher than the average achievement of 500 C students, but averages give us no information about individuals.

C. Relearning and Time Distribution of Learning Work. Experimental investigations have shown that if one learns something, especially if one learns a pattern of associations, and then forgets it and relearns it later, retention of the long-time sort is improved by the relearning. Retention is more enduring after the relearning than after the original

learning. This fact has important bearing on the distribution of learning time, for learning, forgetting, and then re-learning produce better retention than does the same amount of time and work spent on original learning. There are limits beyond which long work in learning is uneconomical. Breaking up the work into shorter periods, with intervening rest periods, produces better retention. The principle is simple, but its application is complex. What is 'too long'? This depends on the nature of the task, as well as on previous progress in learning. What constitutes a 'rest period'? In experimental work we mean by a rest period a period in which the particular task that is the subject of the experiment is not worked on. In practical life, we fill in the intervals between periods of study of one topic with study of another topic or with recreation. Lessons are usually not single tasks but series of tasks. When a learner is required to learn a poem his task is relatively simple. An assignment in a college course is usually more complex. The time distribution that is suitable for one case is not suitable for others. For each skill and topic of knowledge a time distribution of learning must be found, and no general principle of time distribution could possibly be valid.

The principle that learning produces its best results when the work is done in short periods, with intervening periods in which the work is discontinued, probably applies to learning of all sorts, but this generalization is as yet only tentative.

D. Overlearning. The term *overlearning* designates the continuation of practice or of study beyond the point at which, by an appropriate standard, the skill or the assignment has been learned. Here we can generalize, saying that overlearning is almost always wasteful of time and energy. For reproduction learning, overlearning gives longer retention, by whatever standard the retention is measured; but

it is more economical of time and energy to learn to an adequate point in the first instance and relearn later if necessary.

E. Part Learning and Whole Learning. If a poem is to be learned for reproduction-retention, there are two ways of proceeding. (a) The 'part' method: take the poem stanza by stanza, learning each stanza by itself. (b) The 'whole' method: go through the entire poem from start to finish, learning it as a whole. For relatively short poems, the whole method will require fewer readings. For a long poem, the saving will be less, and if one of great length is to be learned the part method may be the more economical. By the part method, in any case, further associative learning will be required to connect the parts with each other so that in reproduction they will follow each other without break.

For learning of other sorts, the results of the two methods may not be like those in learning a poem. To try to learn as a whole an entire history lesson would be absurd, and it would be inefficient for certain other school subjects. Where the parts of the task are individual only in the sense that they are grouped together in a single assignment, the whole method is not applicable. In working on an assignment of problems in mathematics, each problem must be solved as an individual item. Many skills are best acquired by the part method. The automobile mechanic must avoid learning a series of operations as a total whole. He must learn a number of operations, which in various jobs may need to be combined in different sequences.

The pianist, learning a concerto for reproduction, works by the whole method, playing the entire *opus* over repeatedly from beginning to end, but he may need to pick out difficult passages for practice by themselves. His learning makes use of earlier acquisitions in practice of finger exercises, just as the schoolboy learns the procedures of addition, subtraction, multiplication, and division for later

combination in different orders. Fortunately, the sort of learning for reproduction that is forced on the pianist is not the main objective of learning in school and college.

F. Associative Learning by Thinking. Associating responses together into a system practicable for reproduction later is primarily a matter of thinking about the responses and their systematic relations to one another. Even in combining parts of a task into a whole, which may involve what appears to be mechanical learning, one must think of the purpose or objective of the practice. Objectives of all kinds must be given consideration in thought. Further, the results of practice or study need to be given attention in thought processes that are called 'judgments.' In skill learning, these judgments may occur after each performance, as a basis for correction of the errors involved. In studying, for knowledge learning, the situation is different. Judgments of results during study are not helpful, and the attempt to evaluate progress may be detrimental.

Since motivation is an important factor in learning, thinking of objectives is required. By such thinking, one determines the immediate objectives that will enable achievement of the ultimate objective, which supplies the motive for the learning work. This consideration of objectives, whether in skill learning or in knowledge learning, must be separated from the learning work itself. Having planned the course of work, from objective to objective, attention must be withdrawn from the objectives and given to the details of study or practice. As a general rule, thinking during study or practice should be restricted to the most immediate objectives and to the immediate results insofar as they are observable. The farther ahead an objective is, the less it should be thought of, except in the periods that are set aside for planning and evaluating results or achievements. Similarly, the results judged are best restricted to the last results of responses.

Thinking is the most important factor in human learning. It is possible that there are forms of learning into which thinking does not enter, but these sorts of learning are rare in adult life, if there are any such. Even in the infant, thinking is undoubtedly influential for the infant's learning, although it seems probable that during the first year of infancy thinking is not much further advanced than it is in the lower animals.

STUDYING

1. *The Problems*

The work of most college students is primarily the acquisition of knowledge through reading books and listening to lectures. On the other hand, the acquisition of skills is the primary learning process for some students. Students majoring in mechanical arts, or in the fine arts, must practice their arts to attain skill in performance, although knowledge of the fields of art in which they are acquiring skill is a second essential. In laboratory courses in the various sciences students learn skills in the use and control of apparatus and in preparation of materials for study. Even for statistical training a certain amount of skill in making charts and tables and operating computing machines is demanded.

Many of the skills acquired in colleges and technical schools are learned for reproduction, for practical application later. In shopwork, the student is acquiring mechanical skills that he hopes later to apply to the manufacture or repair of engines, furniture, or gadgets. Another student learns painting as a skill in which he hopes to become competent and through which he aspires to become a great artist. A music student learns to play an instrument, with the intention of continuing to play it. Even the techniques acquired in laboratories of the sciences are useful skills for one who continues in that line of work as his profession.

A considerable proportion of the students who work in

laboratories or shops as a routine part of a course acquire skills that they will never use and that they do not expect to use. Since the shop and laboratory types of training are the most expensive types, the question as to the value of skills acquired in connection with courses, aside from the values of skills learned for reproduction, is a vital one. If, for example, laboratory work were required of all undergraduates enrolled in psychology, the demands made on the departmental budget would seriously reduce provisions for students in other courses. In all sciences the following problems arise: How far can laboratory work be cut down without loss? What students may usefully study the science without laboratory work?

If the problem were merely that of determining which students will use the skills acquired in the laboratory and which will not, the questions could easily be answered. The laboratory problem is complicated, however, by the fact to which we earlier referred, the fact that practice on certain responses has an effect on other responses. Furthermore, the acquisition of a skill in a certain field has an effect on the person's thinking in regard to that field. Hence it is commonly believed that laboratory work promotes knowledge of the topics with which the laboratory work is connected; that a better understanding of the topic can be obtained with the aid of work in the laboratory than can be obtained without it.

Determination of the extent to which acquisition of laboratory skills assists the acquisition of knowledge cannot be made in a simple way. The particular topic with which the skill is connected, and the particular field in which the student is otherwise engaged, or expects later to be engaged, must enter into the reckoning. The practical solution of the problem is, in any case, a compromise, a compromise on the part of the students and a compromise on the part of the department involved. Theoretically, a student must

decide whether the skills acquired in a laboratory will benefit him more than would the work he must give up on account of the laboratory. Since the student usually has no basis for the making of this decision, prescriptions by departments and schools are the usual deciding factors.

The problem is complicated by the facts we have explained, that thinking depends on previous perception, so the perceptual skills acquired in the laboratory are important for thinking in the field of the science. This factor, it seems, is more important for the duller students than for the brighter ones. A bright student does not need to construct a pendulum or to set up a pendulum and operate it in order to understand the 'law' of the pendulum or to understand that the 'law,' as simply formulated, is invalid. By less time-consuming demonstration he can grasp the law and the need for correction of the law. For a duller student, his own construction and operation of the pendulum may be more important.

In any case, laboratory work can be useful only if it bears on the principles of the science and if it is exact. The requirement placed on students, which has been described by some of them as "the obtaining of specified results with apparatus incapable of giving those results" is quite unjustifiable, from the point of view of the psychology of learning. In the early period of expansion of psychology, large classes of undergraduates were put through laboratory exercises, which were miscalled 'experiments' and which were really only 'busy work for little fingers.' The results were damaging in two directions. The brighter students acquired a contempt for 'experimental psychology,' while the duller ones thought they now were well grounded in the topic and were fortunate if they were soon disillusioned.

In present laboratory training in psychology, the apparatus employed is only such as can be employed in experimental research; this employment of expensive apparatus

is made possible by not only ceasing to require laboratory work of undergraduates, but also drastically limiting the number of students permitted to take the laboratory courses. For classes of 100 students, fifty sets of each apparatus used were required. This explains why, in place of spectrosopes costing several hundred dollars each, colored papers were used and similar substitutions were made.

Colleges and universities today allow students considerable latitude in their choice of courses. In making up a program, the student needs to consider certain fundamental points, which may be put in the form of questions, as follows: (*a*) Will this course be interesting to me? (*b*) Will the skill and/or knowledge I hope to acquire from the course be of value in itself? That is to ask, will the response and response patterns I may learn be such as I can usefully repeat (apply) in later life? (*c*) Will the acquisitions I may make in this course be valuable as foundations for further courses I plan to take? If the answer is yes, the acquisitions will be valuable as preparation for further work, even if not valuable in themselves for reproduction. (*d*) Does the course seem to be one that would be a step for me in preparation for a useful vocation or an avocation? (*e*) Will the course probably contribute to my better understanding of my fellow human beings, past or present?

These questions are presented more or less in the order of their importance. You will, for example, get more out of a course in which you are interested than out of one that does not interest you. An interesting topic often seems less important for a reason indicated by one of the other questions; but often that which seems to be of little importance turns out to be highly important. Graduate students often say: This topic for research interests me more than the other, but the other appears to be more important. We always advise them to choose the interesting topic.

For most college students the primary problems of study

are, first, those concerning the reading of the printed page and the writing of papers, and second, the taking of notes in lectures. We shall now take these two topics in order of listing. There are, of course, a variety of special problems of application and learning in laboratory and shop, but we may omit consideration of those special problems.

2. Physical Conditions for Reading and Writing

We know the conditions that are favorable for reading and writing, because these conditions have been investigated by experts from various sciences. Unfortunately, many students cannot obtain favorable conditions and have to study under conditions that are sadly disadvantageous. It is useful, however, for everyone to know the conditions that are favorable and the conditions that are unfavorable. In many cases, one can improve conditions if one is aware of the deficiencies. Cramped living conditions in a family cannot be abolished merely by explaining the unfortunate situation of a student who has no adequate place in which to study, but it is worth while to consider your working conditions with a view to improvements that may be possible.

Reading and writing sometimes require relatively lengthy periods of application, and work done in snatches may be wasteful of time and energy. If you start to read an assignment, are shortly interrupted, and have to start over again, your work is disrupted. The more frequently such interruptions occur, the greater is your loss. If you have a paper to write, you may not be able to start writing until you have prepared yourself by a period of thinking. If you are interrupted when you have just started writing, or before you are ready to start, resumption later means a repetition of the preparation, which not only is wasteful, but may disorganize your work.

A student needs, for his studying, a place in which he can be free from interruption and distraction. Attempting to

study in a room in which other persons are talking, or in which a radio is blasting away, is attempting to study under seriously disadvantageous conditions, which interfere with the learning process. It is like trying to follow a lecture while the careless students near you are whispering. Studying in a room into which other persons are frequently entering is a wasteful and difficult procedure, even if the other persons do not speak to you. If you have no better place in which to work, you may be able to school yourself to ignore the distractions; you can work under bad conditions, but your work will suffer nevertheless, and you will fatigue more quickly than you would under better conditions.

A table or desk is essential for writing and is often useful for reading, but a table or desk cluttered with a mass of books and other articles is not satisfactory for writing. For reading, the requirements are somewhat more elastic. A heavy book is best supported on the table or desk; the solid support prevents the book from varying in distance from your eyes and so reduces eyestrain. In reading a book that is not too heavy, you may do very well when sitting or half reclining in a comfortable chair. Reading in bed has been disapproved in the past, but many persons do their best reading in bed. The disadvantage I have found is in falling asleep and dropping the book on the floor; so I read only my personal books, avoiding damage to books loaned to me.

The requirements for adequate lighting of materials studied cover four main points: color quality; control of direction of the light flux; control of contrast; suitable intensity of the illumination.

A. Color Quality. For reading or writing at night, the light emitted by a standard incandescent bulb, such as the 'mazda' lamp, is the best if the intensity is suitable. The bluish light from so-called 'daylight' bulbs or from fixtures equipped with daylight filters gives greater visual acuity, and so is useful for reading of fine print or for jobs such as

typesetting. If light from a different colored source is not employed along with the artificial daylight, it ceases soon to be unpleasant, but there is no doubt that it fatigues the eyes more than does the yellower light of the incandescent bulb.

Fluorescent lamps, which are rapidly coming into general use, can be fitted with daylight tubes, but the 'white' tubes are better for reading and writing. The advantages of the fluorescent lamp are its better diffusion of light and its relatively cheaper cost of operation.

For daytime reading and writing, if light comes through windows, control of the color is impossible. Daylight varies from the bluish light from a clear sky, which the daylight lamps imitate, to the yellowish hue of direct sunlight. Sunlight reflected from white walls beyond the windows or the light from an overcast sky is better for reading or writing than is the bluish skylight, but if you study by daylight, you have to take daylight as it comes. We can expect that in the future daylight will be replaced in our homes, as it has been replaced in auditoriums, by artificial light that can be easily controlled in color and all other features.

B. Direction of Light Flux. The direction from which the light comes to your writing paper or printed page requires control. If you write with your right hand, the light should come from the left, and vice versa, in order that the shadow of the writing hand may not fall on the page. For reading, the right or left direction is less important. If the illuminant is placed behind the lateral plane of the body, at the left for a right-handed person, at the right for a left-handed, the direction of lighting is adequate. Lighting from two directions at the same time, 'cross-lighting,' has been considered deleterious, because it may produce glare, but this result may be avoided. If the illuminant is in front of you, beyond your page, glare is inevitable.

Glare is the result of specular reflection; that is, reflec-

tion of the sort that is familiar in a mirror. All writing papers and book papers give some specular reflection, in addition to diffusing the light that falls on the paper. You can demonstrate this fact by holding a sheet of paper in a strong light and turning the paper to various angles. In one position you will notice a strong glare. Placing the illuminant beyond your page is apt to throw the glare into your eyes, while placing the source of light as we recommend throws it forward and to one side. Glare, even if it is not strong, makes reading difficult and fatigues the eyes. Reading by daylight coming through a window in front of you is to be avoided for reason of the glare that is sure to occur when your book is held in certain positions.

C. Contrast and Its Control. With lights of two different colors in a room, the color contrast may be unpleasant. With light of a single color, the hue eventually disappears through color adaptation. The important control is of brightness contrast. If daylight or light from artificial sources falls directly into the eyes, the page will be dimmed by contrast. Sunlight falling on one part of the page makes the shaded part dim by contrast. Placing the artificial illuminant behind you or sitting with your back to the window prevents light from the illuminant from falling into the eyes, as well as preventing glare.

Shadows falling upon your page make reading or writing difficult and produce eye fatigue through the contrast. Sunlight falling upon a part of the page not only makes the shaded portion dimmer by contrast, but also fatigues the eyes. Strange as it may seem, although strong contrast is deleterious, a slight contrast effect makes reading easier and reduces fatigue. If you have a mild general illumination in your room with a spotlight falling on your page from a shaded illuminant, your reading conditions are better than if you have either a strong illumination of the whole room or have the room dark except for your shaded reading lamp. For a room about fourteen feet square, a fifty- or sixty-watt

bulb in a ceiling fixture with a seventy-five-watt bulb in your reading lamp is about right, unless the walls of the room are darker than the average wallpaper.

D. Control of Intensity of Illumination. Most persons have been found to use, for reading and writing, illumination of less than half the optimal intensity. The page should be fairly bright, in order to make reading and writing easy and to reduce fatigue. On the basis of tests of reading ability and fatigue, experimenters have drawn up specifications for illuminations, but unfortunately the specifications have been in terms of the intensity of the light flux falling on the page instead of in terms of the page brightness, which is the factor of real importance. Different papers used by printers and different writing papers have different brightnesses under the same illumination. The percentages of light absorbed by papers range from 20 per cent to 40 per cent of the flux falling upon the papers. This means that the percentages of light reflected to the eye range from 60 per cent to 80 per cent of the flux falling on the page. Since you do not have instruments for measuring either the page brightness or the flux from the illuminant, you must proceed by trial and error. Whatever intensity of light you are using, try stepping it up in candle power, by increasing the wattage of your bulb. If you have been reading and writing by the light from a sixty-watt bulb, try a seventy-five-watt bulb and try also a hundred-watt bulb. One or the other of these will make your work easier and less fatiguing. A good test for intensity of illumination is to try print a little finer than that of the average book. The page brightness by which you can most easily read the fine print will be satisfactory for slightly larger types.

3. *Personal Conditions of Study*

Students often report that they try to study, but they are unable to concentrate their attention on that which they are trying to study. Some say that they read an assignment but

derive no benefit from the reading, often being unable to recall a brief paragraph after reading it. In some cases, the student is concerned about a difficulty that is more apparent than real. Reproducing something you are learning is unnecessary in the early stages of learning it, and reproduction may be impossible although learning is proceeding normally. Furthermore, learning for reproduction is by no means the most important sort of learning. The important thing is to try to understand what you are reading while you are reading it. Worrying about retention does no good and seems even to be detrimental to the establishment of retention.

In some cases the concern of the student is pertinent; but if one is actually unable to attend to an important matter, then there is something 'wrong' with him. The abnormality may be a product of overattention to other matters or of worry about problems that the person cannot solve. Too much interest in sports or in social affairs and social relations and too much attention to these topics can produce such a result. You may think that you should be able to turn your attention away from engrossing topics, to turn attention from those topics to your topics of study, but attention can seldom be turned off and on in such a simple way. Furthermore, thinking leaves its effects in the nervous system after the thinking ceases. Thinking produces what is sometimes metaphorically called a 'set' in the nervous system, and, after thinking about one topic, this result of past thinking has, for a time, a distracting effect. This aftereffect of conscious responses should be obvious, in view of the fact that retentions of various sorts are produced by study and by practice.

Worries interfere with work and with conscious responses widely, not only when one is worrying, but also in periods after worrying has ceased. A student who has difficulty in making friends is apt to worry about the difficulty; and

even in periods when he is not worrying, the effects of the past worry persist and often interfere with his attention to his topics of study. Unpleasant situations in the person's family are sources of what are popularly called 'tensions' (which in some cases are real tensions), and the results of the tensions may interfere with his work and with his social relations, even when he is not attending to the causes of the trouble. In fact, these family tensions may not be recognized until later in life, long after their malign effects have been manifested.

Thinking is a major influence in life and has influence on behavior, feeling, and further thinking. Whether the effects are beneficial or malignant, they are active forces after the thinking has ceased. You cannot be a person of one kind at one moment and then suddenly change to be a person of a different kind. "As a man thinketh, so is he," and the condition is not temporary.

Difficulty in concentrating your attention on important topics may be a symptom of a minor maladjustment due to worry. If the situation seems important to you, consult some person who is competent to probe into your life in detail: your family life, your social life, and your private life. In most cases the problems that are causing you trouble can be solved with the aid of a psychologist or of a minister of experience in such matters. Psychiatrists are of little use, except for persons afflicted with serious mental disorders. If your problems cannot be solved with the aid of a psychologist or minister who is experienced in such matters, nevertheless they can be made clear to you and you can be helped to take a better attitude toward them.

Worries that interfere with work are sometimes worries about the work itself or about the results of the work. Some students are given to worrying about their college courses and consider, in the worrying way, whether or not they are profiting by their study. Critical consideration of

your progress is necessary at times, but these times should not be frequent, and the consideration must not be given at times when studying should be done. After you have planned your work for a term, the procedure thereafter is application to the work you have undertaken, casting aside, for the time, consideration of profits from the work. Sound evaluation of progress day by day is impossible, even if progress is being made.

Planning your courses is even more necessary than is planning the study of a lesson. If your selection of courses is not suitable, your work will go badly. If the courses you have selected are not intrinsically interesting to you, or the selection is not well motivated by one or more of the interests we have listed, your work in the courses will not be successful. If you find out that you have planned your courses badly before the date set for changing enrollment in courses, you should change promptly. If you have gone beyond the fatal date, nothing can be done about it, except to study, with no concern about the outcome. Planning, like worrying, is most effective when attention is withdrawn from the planning. Mixing planning with the work planned is especially damaging to the work.

Inability to concentrate on work often manifests itself in what is sometimes called 'daydreaming,' which in an extreme form is allied to 'flight of ideas.' The daydreamer begins to read a passage but then starts off on a train of ideas, which is directed by associations having nothing to do with the significance of the passage he is endeavoring to read. A word or a phrase suggests an idea, and that idea suggests another, and so the train goes on and on. Eventually one of the ideas may bring him back to his task, but he starts off on another train of associative thinking. The habit of daydreaming in this way is an indication of problems that the student has been unable to solve and concerning which

he needs advice. The daydreamer, of course, usually does not know the cause of his daydreaming.

Some persons beset with the difficulty of concentrating on work try to concentrate by making effort, which seldom is successful. When you make an effort to concentrate on your work, you are concentrating on the effort, which then serves as a distraction from your work. No bad habit can be broken by effort. Persistence in work is necessary, but this should not be a matter of effort, which is always obstructive.

Planning your work involves laying out a program for your daily guidance. Letting your work pile up, with the expectation of doing it later, merely postpones the evil day and makes it the more evil. Students who work regularly and daily on their courses need have no fear of quizzes, although reviewing for a quiz capitalizes their daily work, producing better grades and useful retentions.

4. *Time Distribution for Study*

It is indicated in Chap. VI in my book *Habits* that no rules can be formulated as to the time periods suitable for tasks of different sorts. One topic of study may be best broken up into study periods of certain durations, while other topics need different periods, and some are best studied consecutively. The only rule generally applicable is that the onset of fatigue is a sign that a rest period or a change of work is desirable. Usually each work period should end only when a definite accomplishment has been attained, but even this rule cannot be generalized. To determine the definite accomplishments, it is necessary to analyze your task and break it up into units. When you have covered one unit, you may find it best to go over the unit again several times before proceeding to the next unit, going over the units consecutively finally when the whole has been studied. This we have described as the part method. For other topics,

the method of proceeding through the assignment from beginning to end, not breaking the study work up into short units (the whole method), may be more successful. Your distribution of working time can be determined in accordance with the subject matter and the method that you find most serviceable to you individually.

In some assignments for study, each part is studied only once. If a set of problems in mathematics is to be studied, you take the set problem by problem and, when one is solved, go on to the next. For assignments in other subjects, you use the 'part method' in a different way. Each unit is gone over a number of times before you proceed to the next unit. After sufficient learning work has been done on the several units, the final procedure (in some topics) is to bring the units together into a whole, to organize the parts of the assignment that you have been studying.

Alternation of tasks makes each task less tiresome and more productive. The college system, in which students register for several courses in each term with alternation of days on which the courses come, is a result of long experience. Some colleges have tried the plan of devoting a section of the term to one course and the following section to another course, but the plan does not work out well. Most persons find it better to have several tasks on hand contemporaneously and to alternate the tasks. If you have three jobs, with no hurry about any of them, you will find one on which you will like to work at any time (or on which you dislike to work less than to work on the other two). Students' tasks, unfortunately, cannot often be arranged this way.

If the whole method of study is employed, it is better to put in some time at one period, then to drop the task and come back to it later. Distribution of time in periods separated from one another by rest periods or by work on other tasks is the most economical application of energy and time.

For the part method, interruption and change of work may not be so helpful.

Many tasks cannot be hurried. After reaching a certain point of accomplishment in a laboratory problem or in writing a paper, you may find that for further accomplishment you need hours, or even days, of thinking before taking up the job again. A period in which you do not even think of the topic but work on something else may be helpful. Apparently this is the reason why scientists who work on research jobs with no other duties do not produce more research per year than do many scientific men in universities who fit their research into a program of teaching. The ideal situation is one in which you can work on a problem as long as it remains interesting and as long as there is accomplishment, with time for thinking about the task when not working on it. For college students, preferable assignments are not for days, but for longer periods; at least such assignments, permitting flexible use of time, would be preferable and conducive to better results of study, were it not for the youthful tendency to postpone study to the last possible moment.

5. The Lecture System and Note Taking

In institutions in which class enrollment is large, much of the instruction is necessarily given in lectures. Many objections have been made to the lecture system, and some of the objections are valid; but the system prevails for the simple reason that there is no substitute for it that is practicable. It is theoretically possible to break large classes into smaller sections, but no university is able to finance the large staffs of instructors that would be required even if large numbers of competent instructors were available, which is usually not the case.

For classes in which there are not more than fifteen or sixteen students, the seminar or discussion method is ade-

quate, but this method breaks down if class enrollments run as high as even forty students. With larger classes, a common substitute method has been to assign readings in textbooks and to quiz the students orally in classes. This routine is almost always depressing and deadly. Breaking the large classes up into smaller sections and requiring each instructor to teach several sections overworks the instructors and involves a tedious repetition, which causes instruction to deteriorate.

Some universities, as a substitute for the lecture system, have tried the plan of abolishing classwork altogether, the students being required to read and to take examinations on the reading. That scheme, like some others which have been substituted, has not been successful. Mass instruction is inevitable in universities with large enrollments, for which the lecture system is adequate. This situation can be bypassed only by drastic reduction of student enrollment. Such reduction can be made by one of two plans: (*a*) high tuition; (*b*) raising of standards for admission and for graduation. This second step has been talked about but never taken, the universities being at the mercy of the public-school systems, the leaders of which are averse to the raising of standards.

The lecture system, at its best, has the advantage of keeping instruction up to date. Instructors who are really interested in the subjects and topics they teach revise their lectures constantly, while revision of textbooks occurs less frequently. There are, it is true, a few instructors who prepare their lectures once and for all, running them off term after term like phonograph records, but such instructors are not typical. Every time a course is repeated, the lecturer needs to put in from one to two hours of work on each lecture. The initial work, when the course is offered for the first time, is much greater, of course, but a course that a lecturer has given for thirty years still requires much

work on each lecture. No competent lecturer can tolerate repeating past lectures verbatim.

Accepting the lecture system as inevitable, the problem of taking notes on lectures becomes important. According to our observations, students can be classed in four groups as follows: (a) Especially smart students, who take no notes, spending their energy in class in following the lectures and trying to understand them. These students trust to their superior ability in recall and memory, aided by the associations formed by thinking while listening, for reproduction of items of the lectures on examination. Apparently such students are a small percentage of the total group, and for the majority note taking is necessary, particularly to provide material for review. (b) Some students whose abilities in understanding and thinking are not very high, and whose retention is not above the average, fail to take notes and suffer from the failure. Aside from providing materials for review, taking notes helps to keep the attention on the lectures. Too often, a student who does not take notes lets his attention wander and not only loses the thread of a lecture, but also lapses into whispering with his neighbors, thus disturbing others. (c) At the other extreme is the class of students who attempt to record verbatim everything the lecturer says. For one who is proficient in shorthand, this is an appropriate procedure. It is true that the competent shorthand reporter usually does not understand what he records, since verbatim reporting precludes attention to the meaning of the phrases recorded. The real process of understanding commences with the transcription of the notes, which then are available for study.

The majority of students who attempt verbatim note taking are not adept at shorthand and attempt to jot their notes down in longhand, and this is an impossible attempt. While the student is writing one phrase, the lecturer has gone on to another phrase, so the result is a jumble of

phraseology, which does not make much sense and which often is quite misleading. The note taking has interfered with the grasping of the lecturer's points, and the notes are not useful for review. (*d*) Students of the fourth group try to note down points, rather than phraseology. Students in this group vary between the extremes of those who record too little and those who record too much. Somewhere in between these extremes there is a useful mean, and the attaining of this mean is the solution of the problem of note taking. The important thing is to record ideas rather than words or phrases. Words or abbreviations of words of course must be used, but each word or combination of words that you write must be a hook on which you hang the ideas and which in later review will recall to you the ideas.

The words written or abbreviated must be from your own vocabulary, except of course technical terms, which may need to be recorded, and the words must represent your understanding of the lecture. Notes so recorded will serve as aids to recall the lecture as you understood it. They are not apt to be serviceable to another person, and, if you did not understand the points presented in the lecture, your notes will have little significance for yourself later.

Writing of sentences is seldom useful and is never necessary. Attention to grammar and syntax is more disturbing than useful in note taking. The ideal is to put down a sufficient number of words or abbreviations to form a framework that will enable you, when you review the lecture, to reconstruct the points, and to put down no more than is necessary to that end.

In theory, it would be useful to make available, to every student in a class, notes in printed or mimeographed form to which he might refer during the lecture, as well as retain for later study. To this plan there are several practical objections. The notes would have to be prepared by the

lecturer and kept up to date as the lectures are revised or improved. A new set of notes would have to be prepared for each term, and this requirement is one that few instructors have the time to fulfill. Preparation of an adequate set of notes, even after the contents and form of the course have been determined and the course crystallized, is a job requiring much time and labor and is hardly possible for courses that are in a progressive stage, as every lecture course should be.

Some lecturers have prepared what are called *syllabi*, which students are expected to purchase in mimeographed form. According to reports by students, some of these syllabi are adequate and useful; others are reported as being so far from being notes that they are of no use for reviewing the course. The latter syllabi are nothing more than prospectuses or 'selling talks,' designed to indicate the topics the courses may be expected to include or cover. In still other cases, according to student reports, the syllabi do not even indicate what the courses actually include. This disjunction of course and syllabus may be ascribed to the situations we have described. The course, perhaps, has been revised, but the lecturer has not had time to revise the syllabus. On the other hand, a stock of unsold syllabi of the original course may prevent the mimeographing of a revision.

From all points of view, it seems that there is no way in which students can be relieved of the task of taking their own notes on lectures. Notes taken by the student himself are better than any that could be prepared in advance by an instructor, if the notes are taken as we have recommended.

MENTAL DISORDERS: THEIR TYPES AND CONDITIONS

1. *Classification of Mental Disorders*

If we employ the term *maladjustment* in the second of the two senses in which we have defined it (Chap. I, p. 9), that is to say, if by the term we mean a state or condition of a maladjusted person, we may employ the term *disorder* as a synonym. Theoretically, disorders are of two sorts: physical or organic disorders and mental disorders. We shall be concerned primarily with mental disorders (mental maladjustments), but we shall pay some attention to physical disorders for the purpose of clarification by contrasting and comparing the two sorts of disorder and shall indicate again the fact that the disorders of certain classes are causally related.

Physical disorders are commonly designated as diseases or injuries, but a physical disease may be a cause of mental disorder, and some troublesome mental disorders are of physical causation, while some other disorders classed as mental are of uncertain origin; they may be caused by psychological factors or may be physically caused. Such pathological disorders as epilepsy are definitely of physical causation, and in other disorders physical causes cooperate with psychological causes. Amentia is commonly assumed to be of organic causation, although for some types of amentia we do not know the exact nature of the causes. Educational maladjustments are sometimes results of physi-

cal conditions such as defective vision, defective hearing, or malnutrition.

There is no group of disorders that could be properly classified as emotional, because all mental disorders are emotional, in any sense of the term 'emotional' that can be employed consistently. It is true that some psychologists have defined emotion in a way that sets it apart as a special type or pattern of response, but those who define it in that way are not consistent in their applications of the term and constantly slip into the more common usage.

For some sorts of disorder we shall use the term 'neurotic maladjustment'; why this term is used will be explained as we proceed.

In classifying disorders both of the organic and of the mental types, two principles of classification are generally applied. These are: (a) *descriptive classification* and (b) *etiological classification*. In *descriptive classification* disorders are grouped in accordance with the types and patterns of responses characteristic of the disordered persons. This might be called 'classification by symptoms' but is more accurately called 'classification by syndromes.' In classifying descriptively, while applying the social criterion, the grouping is by types of behavior and habits of behavior (behavior traits). In applying the personal criterion, behavior traits are considered, but conscious processes that do not involve behavior directly are often equally important or even more important. Descriptive classification is based on observations that might answer the questions: What does the patient do? How does he perceive? How does he think? How does he feel?

Etiological classification is classification by the causes or the patterns of causes of the patient's condition. For this classification, the questions to be answered are: What has caused the patient to act as he does? What has caused him to perceive, think, and feel as he does? The etiological

classification is more important than the descriptive because it usually indicates the therapy that the patient needs.

Two sorts of organic or physical causes of disorder are distinguished: (*a*) anatomical and (*b*) physiological. Anatomical causes include wounds, broken legs or arms, deformities such as clubfeet, and failure to develop the organ of hearing. Myopia and hyperopia also belong in this class. Among physiological causes are included degeneration of receptors of the various senses; faulty functioning of the endocrine glands; faulty metabolism of other sorts; and bacterial infection that may produce a disease.

On theoretical grounds, organic defects, injuries, and diseases may be classified in another way as (*a*) those which produce no mental effects; and (*b*) those which are causes of mental disorder. Any disease or defect may, in certain cases, be an important secondary cause of mental maladjustment, and some diseases such as tuberculosis usually produce abnormal mental conditions. Even deafness may be a predisposing cause to mental maladjustment, and so may be deformity of a limb. In fact, the causal patterns of most cases of mental maladjustment include both psychological causes and organic causes.

The system of classification of mental disorders that has grown up during the centuries is in part descriptive and in part etiological. The disorders are grouped in several broad classes, the number and names of which vary in accordance with the theories and dogmas of the different 'schools' of psychiatry. A representative list contains six groups, namely: organic psychoses; functional psychoses; epilepsies; neuroses; minor maladjustments, which may be called "limited" maladjustments; amentias. The terminology determined by this scheme of classification has become embedded in common language, and so we must pay some attention to it, although the scheme is highly confused and neither psychiatrists nor psychologists at present consider it

satisfactory. The terms *psychosis* and *neurosis* need explanation immediately.

Misled by loosely interpreted etymologies, many persons have the impression that a psychosis is a purely mental disorder and that a neurosis is essentially a malady of the brain, or at least of the nervous system. One English dictionary, in fact, defines the terms in these ways, and some textbooks of abnormal psychology have adopted similar definitions, which are not in accord with the actual applications of the terms, although the term *psychosis* is sometimes applied in the etymological sense, and sometimes in the more common meaning. The term *neurosis* was invented in the nineteenth century to designate a group of maladjustments that it was deemed desirable to distinguish from the psychoses that had so far been recognized, but the etymology of the term is completely misleading.

2. *Maladjustments of the Several Classes*

Our primary concern is with disorders that are classed as neuroses and with the ones classed as minor maladjustments. In order to understand these disorders, however, it is necessary to compare them with the psychoses, epilepsies, and amentias. Such comparison is important because some of the disorders classed as neuroses are really organic psychoses, and others might equally well be classed as functional psychoses. There is, moreover, no sharp line separating minor and major maladjustments.

A. The Organic Psychoses. In this class name the word 'psychosis' is used with two meanings. One meaning is in accord with the popular etymology of the term, designating a mental disorder that is known to be the result of an organic disease, injury, or toxic condition. Thus, we speak of the several psychoses of syphilis; the psychosis of lead poisoning; the psychosis of tuberculosis. In the second meaning, the term 'psychosis' designates the mental condi-

tion together with the organic condition that causes it. Thus paresis (formerly known as 'general paralysis of the insane') is called a psychosis and is further defined as a condition of degeneration of brain cells produced by the spirochetes of syphilis. In this usage, the term designates both the mental disorder and its organic cause. When a psychosis is named with an adjective, such as 'alcoholic psychosis,' or with a noun used adjectively, such as 'opium psychosis,' it may be impossible to determine the meaning in which the term *psychosis* is used.

In the class of organic psychoses, it is obvious, the disorders are grouped in accordance with the principle of causation. The class includes only certain mental disorders of which the primary causes are known to be organic.

B. The Functional Psychoses. Functional psychoses, as distinguished from organic psychoses, are classed together in a purely descriptive way, since their causes are unknown. The term *functional psychosis* is best understood as synonymous with the descriptive phrase, *mental disorders of unknown causation*. In other words, the word 'psychosis' is used in the popular etymological sense, while the ordinary meaning of the word 'functional' is disregarded.

It is possible that the term *psychosis* was first applied to disorders of this group because it was believed that eventually their causes would be discovered to be organic. At any rate, this is the only assignable reason for our continuing to call them 'psychoses.' This belief may be correct for some of the so-called 'functional psychoses' but may be wrong for other disorders in this class. At any rate, a disorder is classed as a 'functional psychosis' only so long as its cause is unknown. If, eventually, the cause is discovered to be organic, it is at once classed as an organic psychosis. This has happened to paresis, which was once a functional psychosis; when the cause of paresis was discovered to be

syphilitic degeneration of brain cells, it became at once an organic psychosis.

The functional psychoses can be described only by the process of enumeration. The class includes at present two disorders or two groups of disorders: (a) *manic-depressive insanity* and (b) *dementia praecox*, or *schizophrenia*. These will remain in the class of functional psychoses until their causes are discovered. A third name is sometimes listed, *paranoia*, but it is generally agreed that this name is best applied to a syndrome of symptoms that occurs not only in various psychoses, but also in some neuroses.

a. There are several types of *manic-depressive insanity*, and the causes for some of them may be, when they are eventually discovered, different from the causes of other types. The type from which the group derived its name is usually called 'circular insanity,' and the name 'manic-depressive' is sometimes restricted to this type. A patient suffering from circular insanity goes through an alternation of phases of excitement (the manic phase) and of depression (the depressed phase). Between each excited or depressed phase and the following opposite phase there is a period of normality, which is conventionally called the 'lucid interval.' The lengths of the periods of abnormality are usually periods of days or months, but vary in length from case to case and may vary during the duration of a particular case, but the lucid intervals are usually longer than are the phases of abnormality. In extreme manic-depressive cases the excitement may be of the violent sort called *mania*, in which the person is commonly called a 'maniac' and may be murderously inclined. In the depressed phase, the patient's condition may be such that he is in a stupor from which he cannot be aroused. In lighter cases, the excitement and depression may be no greater than what we call 'emotional moods' in normal persons.

In a second type of manic-depressive insanity there are

no excited phases, but only alternation of periods of depression with lucid intervals. In a third type, there are no depressed phases, but periods of excitement alternate with lucid intervals. These types, however, are commonly designated as manic-depressive insanity, along with the circular type.

The occurrence of periods of depression or of periods of excitement, or of both, does not in itself indicate manic-depressive insanity. Excitement and depression appear in some organic psychoses, in schizophrenia, and in neuroses, and often alternate in these disorders. Moreover, excitement and depression appear in most normal persons. Identification of a case as manic-depressive rests on four essential conditions, namely: (1) It must be evident that the patient is really a disordered person. (2) The cause of the disorder must be unknown. (3) There must be a periodicity in appearance of the excitement and/or depression, with intervening lucid intervals free from either. (4) There must be an absence of other symptoms that would make it more convenient to classify the disorder under some other heading.

b. The term *dementia praecox* was originally applied to distinguish the sort of dementia that may occur in early life from dementias known to have organic causes, such as the dementia common in old age, when the nervous system has undergone degenerative deterioration. 'Dementia' (literally, loss of mind) is the stock term for progressive decline in mental functions, usually involving deterioration in attention, in memory and reproductive imagination, in judgment, in initiative and industry, and in social aptitudes. The patient may become slovenly in physical traits and careless in regard to bodily functions. Latent traits such as dishonesty, cruelty, and sexual depravity may be enhanced as the dementia progresses. Dementia is a characteristic of many disorders, and the patterns of degeneration are various.

The word *praecox*, or, as often spelled, *precox*, means 'premature' or 'precocious'; thus it designates appropriately a dementia that may develop in a youthful period or that may appear from unknown causes. The modern term for dementia praecox is *schizophrenia*, which implies a splitting of thought processes, a splitting, however, that does not actually occur, except in the theories of psychiatrists. The implication is that there is a 'split' between the patient's behavior and his thinking. He has peculiar ideas about himself and about his environment, but acts in many respects without reference to his delusions. He may think, for example, that he is Napoleon Bonaparte, but continues to lead his usual life as a shoe salesman. In current psychiatric argot, he is said to have a 'split personality,' but schizophrenia is really only a fancy name for what is popularly called 'being crazy.' Most of the schizophrenic patients are as consistent in their thinking and behavior as are normal persons. When a patient who thinks he is an egg beater is made to work in the garden of an institution, he does not have a split personality, but regards himself as an egg beater hoeing in the garden. The alleged splitting is at most an alternation; the patient has delusions at times and at other times is lucid. One youth whom we had under observation believed that he was Abraham Lincoln; and when under that delusion he acted as he thought Lincoln would have acted or as nearly like Lincoln as his knowledge and circumstances permitted. When brought temporarily out of the deluded state, he acted like himself. As his disorder became worse, the delusion, with its appropriate behavior, became more persistent. In other words, as the gravity of his disorder increased, the alleged splitting decreased; but the splitting, at any time, was an alternation of phases of delusion with lucid intervals. In some deluded phases a schizophrenic patient is excited, and in other phases, he may be depressed.

Under the new heading of schizophrenia are classed not only the cases formerly designated as 'dementia praecox,' but also a variety of other mental disorders; hence the group has had to be divided into from four to six subgroups. The increasing tendency of psychiatrists is to classify as schizophrenics all patients whose syndromes of symptoms do not put them obviously in one of the other classes. If the cause of the patient's disorder is found to be organic, he has, of course, an organic psychosis. If he displays alternations of phases of excitement and/or depression with lucid intervals, he may be classed as a manic-depressive. If he has convulsive seizures as a conspicuous symptom, he is called an epileptic. If he displays none of these symptoms, he is thrown into the 'wastebasket' class of schizophrenia. It is no wonder that the number of schizophrenics has increased rapidly, relative to those cases assigned to other classes of disorder.

C. Epilepsies. Epilepsy is the conventional name for a group of disorders that agree in a single symptom only; namely, convulsive seizures, which are popularly called 'fits.' Some of these epilepsies are known to be of organic causation and are described by names with qualifying adjectives. Thus 'Jacksonian epilepsy' is ascribed to pressure on the brain by a piece of the skull or by a tumor in formation. This, of course, should be called an organic psychosis. Other cases for which a cause has been found have been designated as 'Ménière's disease,' although the hypersensitivity of the vestibular mechanism that the name denotes may not be the primary cause of the disorder. Epilepsies of unknown causation are conventionally known as *idiopathic epilepsies*; but the preferred designation of all epilepsies at present is *convulsive disorders*, a term that recognizes the growing acceptance of the fact that there is no such 'medical entity' as epilepsy, but that the name is that of a group of disorders that agree in a single symptom.

Epileptic seizures involve spasmodic contractions of the skeletal muscles as their most conspicuous feature. The spasms range from the violent type (*grand mal*), in which the whole system of skeletal muscles is involved, down to lighter types (*petit mal*), in which there are apparent only light twitches of a limited group of muscles. In the violent seizures of *grand mal* the patient often falls down and may injure himself by striking his head; hence epilepsy has been called the 'falling sickness.' In some cases the smooth muscles of the alimentary canal and of the genitourinary system are involved in the seizures, but the extent to which the smooth muscles are involved in other cases has not been ascertained.

Epileptic seizures may last from a few seconds to several minutes. They usually begin with slight spasms, which may remain at that level, and soon cease, or may become progressively more violent and may reach the stage of *grand mal*. In the incipient stage of a seizure it may be broken up by stimulation of the patient by slapping his face or twisting his arm, the slight pain acting as a distraction. Some minutes before the seizure begins the patient may have what is called an *aura*, a sensory or affective experience that warns him that he is to have a seizure. If the aura were an invariable forerunner of a seizure, patients could be trained to protect themselves and even to prevent the seizure. Unfortunately, not all patients have auras, and those who do cannot depend upon their occurrence before all seizures. Protection against dangers which seizures may entail can be attained, however, by planning at other times. An epileptic driver may plan to draw up beside the road when a seizure is beginning and will find himself so parked when coming out of a convulsion. It might be supposed that an epileptic is in danger of having a seizure when crossing the street in traffic, but actually he will delay the seizure until he reaches safety.

The intervals between seizures vary from person to person and from period to period for the same person. There may be several seizures in one day; or they may be separated by periods of days, weeks, or months. The frequency of seizures has no relation to their severity; and the same patient may have both violent seizures (grand mal) and slight seizures (petit mal) on the same day. In the intervals between seizures the patient is normal, mentally and physically, unless, by brooding over his handicap or over the treatment he receives, he has become neurotic. The so-called 'epileptic personality' which some patients display seems to be a neurotic condition produced by the patient's worrying about himself; shame produced by the seizure; withdrawing from normal social relations; being babied by parents; and/or constant doping with drugs. Epileptics in institutions always deteriorate mentally.

Following a seizure of the grand mal type, and sometimes after a seizure of the petit mal type, the patient usually has *retrograde amnesia* for the time period of the attack. That is to say, he is unable to remember events that occurred during the seizure. This has led to the popular theory that the epileptic is unconscious during the seizure; but tests made on patients during seizures have shown that they are conscious, although the field of attention is restricted and consciousness may be somewhat confused. In light seizures of brief duration, the aberration of consciousness appears to be no more than a brief distraction from objects, events, or thought contents to which the patient had previously been attending.

That the causes of some convulsive disorders are psychological is fairly certain. We once told a young woman that we suspected that her seizures commenced from muscular tensions produced by her family situation and were continued because the seizures distracted her from the unpleasant topics entailed by her situation. She replied, "You

know, I've thought of that myself." In other cases, the cause appears to be organic, although obscure.

It is important that all persons should know what to do for a person who has an unexpected seizure and what to do about a person who is known to be subject to seizures, since not all seizures of the epileptiform type are indications of idiopathic epilepsy. Poisons taken intentionally or inadvertently may cause seizures, and digestive trouble may be a cause. Physical exhaustion may be a cause, which accounts for the outbreak of convulsions after a field day, in which contestants, especially distance runners, become completely exhausted. For these reasons, it is well to call a physician when a person with whom you are unacquainted has a seizure of the grand mal type. If the seizure turns out to be due to idiopathic epilepsy, the physician can do nothing for the patient; but it is well to find out, especially if you are not able to decide whether or not the convulsions are really epileptiform. If the patient is protected from danger, let him alone after calling the physician. Bystanders are advised by some pamphlets to stuff a piece of cloth or paper in the victim's mouth to prevent him from biting his tongue, but unless you are an expert in giving first aid you may do more harm than good.

For a case of petit mal, the best you can do is to let the victim alone. If a student in a class commences to 'jerk,' the only risk is that he may fall out of his seat. If he does fall out, a couple of men can carry him to a corner of the room, where he can be stretched out until he comes out of his 'fit.' The best thing you can do for a minor seizure is to ignore it completely. Pay less attention to a seizure of the petit mal type than you would to a fit of coughing or sneezing. When the epileptic recovers, avoid looking at the victim with horror or even with too much attention. If for some reason the seizure is mentioned in the patient's presence, be careful to make no remark that might indicate that

you think it a serious matter. This attitude toward an epileptic is essential if you are interested in helping him.

Many epileptics have their seizure only at night or in the early morning, and in the course of time recover. These persons are able to go about their affairs as do normal persons, having no need to avoid responsibility and contacts with other persons and not thinking of themselves as invalids. On the other hand, one who has his seizures by day is apt to have them publicly and in consequence feels humiliated and tries to protect himself by withdrawing from social contacts. His family endeavors to protect him by relieving him of normal responsibilities and makes an invalid of him. Medical treatment, usually dopping with drugs, increases his despondency and worry.

If a member of your family is subject to convulsive seizures, the first thing to do is to have him examined by a competent physician, in order to determine whether an organic cause can be found. If the diagnosis by the physician is that of idiopathic epilepsy, you should treat the person as little like an invalid as you possibly can. Encourage him to accept normal responsibilities, both for himself and for others, just as if he were not an epileptic. He is in no more danger, even in traffic, than is anyone else. Whatever risks he may incur are less important than the certainty that avoiding risks will be damaging. There is a popular belief that epileptics are especially unsafe as drivers of cars; but, after experience with such drivers, I am inclined to think that they are safer than drivers who are considered to be 'normal' persons. The epileptic driver, however, needs competent advice as to how to protect himself. I presume that some epileptics do have crashes; but so do other drivers. Sound planning in normal periods is a protection for emergencies, both for epileptics and for normal drivers.

An epileptic college student is tempted to withdraw from college, or his family may be disposed to take him out of

his work, although he may be doing well in it. Yielding to this temptation is understandable, but it is the worst step to take. Giving up work and responsibility is a serious step downward. For this reason we have emphasized the attitudes that students should take toward epileptics and their seizures. Taking the casual attitude is the one thing you can do to give the epileptic a fighting chance. For idiopathic epilepsy there is no cure, but many patients get well, and you can do your part by making their psychological conditions favorable.

I am glad to say that students in this university have in the past taken the attitudes we have recommended, giving practical assistance and avoiding expression of sympathy. Even seizures of the grand mal type have been treated as if they were no worse than falls on the ice or slips on banana skins. I recall an instructor who told us that a certain student had mild seizures in class. "Yes," we replied, "we know he does." "What shall I do about them?" was the instructor's question. "Do nothing," we replied, "unless the other students in the class pay too much attention to his seizures, then talk to the other students, not to the victim." "No, the others pay no attention," said the instructor. "Fine," we said, "they are doing what they ought to do."

D. Neuroses. There is at present no useful definition of a neurosis, and the significance of the term, such as it has, can be indicated only by enumerating the disorders commonly classed under that heading. The principal disorders grouped as neuroses are *hysteria*, *neurasthenia*, and *psychasthenia*. The grouping under these three subheadings is purely descriptive, determined by the syndromes of symptoms, with no relation to the causes of the disorders. The subheadings are more and more disregarded in practice, since the syndromes of disorders that might be classed under one of the names vary so much from case to case that it is

simpler to call them just neuroses than it is to classify them in the traditional groups. Since the conventional names and especially the adjectives derived from them are still used, it is worth our while to pay some attention to them.

a. Hysteria. The word 'hysteria' is derived from *hysteria*, the Greek term for the uterus or womb. As the term indicates, it was once believed that hysteria is a disorder peculiar to women, but that belief has been abandoned, although the hysterical patients studied in clinics in the heyday of hysteria were almost all female. The symptoms displayed by hysterical patients in the past were of several sorts; but are all closely related to one another.

The hysterical patient adopts any idea suggested to her in any way and elaborates it to suit her notions about her case. Ideas suggested by someone who had no intention of suggesting them may be transformed and elaborated by the patient to suit her notions that she is a serious invalid or is abused or is misunderstood.

Among the conspicuous symptoms that hysterical patients adopt are paralyses, blindness, deafness, and dermal anesthetics. Symptoms of any disease suggested to the patient may likewise be adopted. The patient does not counterfeit such symptoms deliberately, but may, under pressure from a skeptical person, manufacture evidence to support the disabilities she believes she really has. In this respect she is like the spiritualist medium, who, when caught in a trick, claims that her 'power' was temporarily lacking, and so she had to fake her performance to demonstrate the power she usually possessed.

Hysterical anesthetics are usually distinguishable from genuine anesthetics without difficulty. Hysterical dermal anesthetics, for example, do not correspond, in areas affected, to the known distribution of sensory nerve fibers to the skin. As for anacusia, the patient may be deaf to certain sounds and not to others, but the differences

are not in agreement with those of persons who really are 'hard of hearing.' As for hysterical paralyses, they do not affect only the muscle groups supplied by the same motor nerve, as do genuine paralyses, although a patient whose entire side of the body is paralyzed does present the symptom of genuine paralysis. For more selective paralyses and for dermal anesthetics, the hysterical patient would have to have a better knowledge of neural anatomy than any such patient possesses.

Hysterical symptoms may appear suddenly and disappear as abruptly. It is true that paralysis of the genuine sort may appear overnight, but the disappearance is slow. Anesthesia of the skin may be produced suddenly by cutting a sensory nerve, but recovery is a slow process. In the hysterical patient an emotional crisis may terminate one set of symptoms and install a different pattern. Fear, anger, or any other factor that redirects the attention of the patient may do the work. Bedridden patients have been known to jump out of bed and flee when the house has caught fire. In such cases we might well say that the patient forgets to display her symptoms.

By skillful staging of tests sensitivity can be demonstrated for areas that are hysterically anesthetic. One of Janet's patients furnished an excellent illustration of this method. This patient was anesthetic to touch, pressure, and pain over the entire left half of the body, including the left arm and left leg. When pinched on the left side she claimed not to feel the pinch and gave no motor indication of pain, even when the pinch was as severe as one on the right side that produced flinching and vocal report of pain. These differences, however, obtained only if she saw the pinch or was told the side on which it was to be inflicted. Janet blindfolded her and instructed her to say 'yes' when she felt a pinch and 'no' when she did not feel it. He then proceeded to pinch her without warning as to when or where the

pinches would be inflicted. Every time she was pinched on the right side she said 'yes'; and every time she was pinched on the left side she said 'no.' Afterwards she claimed to have no recollection of having said 'no' at any time. Was this claim fraud? No, it probably was due to retrograde amnesia!

The feature of hysteria that has most appealed to popular interest is the *crisis* or hysterical seizure to which some patients are subject. These crises are not epileptiform, but may involve general muscular tension and erratic behavior, including laughing and crying, somewhat like the behavior in the lighter forms of mania. The hysterical patient seldom, if ever, hurts herself in one of her crises and is never harmful to other persons.

A generation ago, there were numerous cases that were diagnosed as hysterical. Today, such cases are few and far between, and there seem to be two reasons for the change. First, a change in diagnosis; patients who once would have been classed as hysterical are now classed otherwise—most of them simply as 'neurotic.' Second, the striking cases of the past were built up through suggestions given, often given unintentionally, by the physicians who studied the patients. This build-up was accentuated by showing the patients in clinics to medical students and even to the general public. Looking at the symptoms of hysteria not as signs of a specific disorder, but as symptoms occurring in many disorders, physicians and psychologists today are interested in the symptoms as indications of maladjustment, for which the causes are to be sought; they are not interested in showing off the patient and avoid suggestions that might be dramatized by the patient. This lessened attention to the symptoms as such removes the greatest temptation to the patient to 'put on a show.'

The tendency to adopt morbid symptoms suggested to one is not confined to hysterical patients. Many persons who

become familiar with symptoms of disease tend to fancy that they have the disease to which they suppose the symptoms point. Such persons are called hypochondriacs, and hypochondria is the basis for the patent-medicine industry. Although we do not class hypochondria as a form of hysteria, it is probable that any hypochondriac could be built up into a typical old-time hysterical case by appropriate suggestions.

b. Neurasthenia. Etymologically, the term *neurasthenia* means 'nerve weakness,' but the derivation of the term is to be ignored. Neurasthenia is a condition of weakness for which there is no cause easily discernible. Under adequate stimulation the patient can exert normal physical strength, but he does not habitually exert himself, and when he does exert himself normally he tires rapidly. He can concentrate his attention, but he does not concentrate on work or on normal social procedures. If he is motivated to work, his motivation soon loses its potency. The neurasthenic patient may be listless and apathetic, or he may be jittery. The neurasthenic has lost interest in work and has lost interest in the normal purposes of thought and behavior. His neurasthenia, in short, is *weakness of motivation*.

The syndrome characteristic of neurasthenia occurs in many physical diseases or in the convalescent periods thereof, but where the causes are so definitely known we do not diagnose the case as neurasthenia. Insofar as the term is applied at present, it is applied only to cases that are not known to be of physical primary causation. In these cases there is no weakness of muscles as such, no weakness of motor cells or of nerve cells of other groups; the weakness is in the integration of the cells of the nervous system as a system. This defective integration might be ascribed to the cerebrum, but the ascription is conjectural. In any event, the cause, although probably psychological, is seldom certified for most cases of neurasthenia.

c. *Psychasthenia*. This is another term for which the etymological derivation is best ignored. The word 'psychasthenia' may well be considered as just another terminological accident. *Psychasthenia* resembles *neurasthenia* in its characteristic weakness of motivation; it resembles *hysteria* in its delusions and inhibitions. *Psychasthenic* patients are subject to fits of uncontrolled excitement and to depressed periods that somewhat resemble the phases of manic-depressive insanity, although the phases are more irregular and usually are shorter in duration than are the phases in the latter disorder.

If there is an obvious organic basis for the disorder, the patient is classed not as *psychasthenic* but as having an organic psychosis. A woman who suffers from a psychosis that develops at the menopause may display the typical *psychasthenic* syndrome, but the diagnosis is not that of *psychasthenia*, because it is assumed that the cause of the disorder lies in the physiological changes which occur at the change of life, although, as we shall point out later, the physiological change is really only a secondary cause.

The category of *psychasthenia* is little used today. Disorders of mysterious causation that some years ago would have been diagnosed as *psychasthenia* are now called *neuroses*, with an adjective describing an outstanding symptom. Thus we find the names 'compulsive neurosis,' 'obsessional neurosis,' 'anxiety neurosis,' etc. Some cases, however, are called 'functional psychoses' and added to the collection in the waste basket of 'schizophrenia.'

The outstanding symptoms of cases that, in the past, have been diagnosed as *psychasthenic* are phobias, delusions, anxieties, obsessions, and compulsions. In different cases one or another of these symptoms may be more conspicuous than the others. Not all the symptoms listed occur in all cases.

3. *The Relation of Neuroses to Functional Psychoses*

The question, 'What is the real difference between a neurosis and a functional psychosis' is one which comes up repeatedly. The answer is that the difference is due to the convention of calling certain disorders by one name and other disorders by the other name, the disorders being identified by their symptoms only, their causes being unknown. This convention 'grewed up' like Topsy and has no significance today. We are arriving at the point at which we may be able to class as neuroses all disorders whose primary causes are known to be psychological, leaving disorders of uncertain causation in the class of functional psychoses. At present, however, we continue to class disorders under the conventional and archaic headings, even continuing to class as neuroses some cases that we know to be in reality organic psychoses.

Some theorists in the field of psychiatry have felt the compulsion to justify the distinction between a psychosis and a neurosis, the etymological distinction having been abandoned. Of the various attempts at justification, the one which has been most fashionable in recent years has been based on the assumption that a psychosis involves the 'whole personality' of a patient, while a neurosis involves only a limited part of his personality. This explanation is a procedure that the psychoanalysts call *rationalization*, by which term they, of course, mean fallacious rationalization; that is, giving a rational interpretation for something which is intrinsically irrational. The term *rationalization* in that sense has become adopted into psychiatric slang and also into the vernacular and well describes the justification of which we were speaking.

The word 'personality' is, of course, a vague term, which means in any usage whatever the user intends it to mean at the moment; but the only interpretation we can put upon

the term in the usage described is that a psychosis disorders life in all its phases, that behavior, thought, and feeling are disordered, and that perception may be. A neurosis, on the other hand, seems to be assumed to affect only a limited number of the patient's traits.

On these assumptions, we would have to conclude that a disorder that eventually becomes a psychosis is, in its incipient stage, only a neurosis, since it usually shows itself at first in a few traits and progressively involves more and more of the patient's life processes. A neurosis, in short, becomes just an incipient psychosis, which washes out the distinction between them. A neurosis, furthermore, often involves the 'whole personality' of a patient as completely as many a functional psychosis or even an organic psychosis. Descriptively, the various symptoms appearing in the syndromes of functional and organic psychoses appear also in neuroses. Even if we should agree to abolish the psychasthenias, the other neuroses offer difficulties to the definition of psychosis as a condition affecting the whole life of the patient, because many cases that by present criteria are classed as neuroses would have to be reclassified as psychoses, which again erases the distinction. While the distinction between the organic psychoses and all other mental disorders is sound and significant, an attempt to rationalize the distinction between the neuroses and the functional psychoses must ignore the facts.

In some cases that we still diagnose as neurotic, an important factor in the causal pattern is organic. A few years ago, investigators in the U. S. Public Health Service discovered that some neurotics who had been supposed to have nothing physically wrong with them were really suffering from chronic undulant fever. These patients obviously should be classed with sufferers from organic psychoses, but we still call them neurotic. In other cases, malnutrition is an important cause, and still other organic causes are sus-

pected in other neuroses. Some of the disorders classed as neuroses are of psychological causation; but so, it has turned out, have been some cases diagnosed as schizophrenic. It has become obvious in recent years that the class of neuroses contains a rather heterogeneous collection of disorders and is to an extent another 'wastebasket' class.

In summarizing, we repeat that the classes of neuroses and functional psychoses overlap both descriptively in their symptoms and with respect to the etiological principle also. Further, both neuroses and functional psychoses alike vary from slight afflictions that do not seriously interfere with the person's work or social relations, up to serious conditions that totally incapacitate the patients for normal life. A similar range from slight to serious is found, in fact, in the organic psychoses as well. Psychoses and neuroses are usually slight in their beginning stages and become progressively more serious, although a functional psychosis or a neurosis may *seem* to begin suddenly especially if precipitated by an additional cause, such as an 'emotional shock.'

A patient suffering from an organic psychosis does not improve unless the organic condition that is the basis of his disorder is remedied or alleviated. A patient suffering from a functional psychosis cannot be cured, since the cause of the disorder is unknown and so cannot be remedied; but he can be assisted to recover by competent psychological treatment combined with physical hygiene. As the head of one of the great hospitals for the mentally disordered once said, "We cannot cure our patients, but some of them get well."

Both neuroses and functional psychoses may be periodic. Although manic-depressive insanity is the typical periodic disorder, schizophrenics also show periodic lucid intervals, and neurotics may clear up temporarily, relapsing subsequently into the neurotic condition.

4. *Minor or Limited Maladjustments*

Psychoses, epilepsies, and neuroses may be grave or serious disorders that eventually affect life in all its phases, and patients so afflicted become *disordered persons*. *Amentia*, on the other hand, is classed not as a disorder, but as a defect; but the ament, although described as 'retarded in intelligence,' is really an abnormal person. The ament's defect may be in a certain sort of intelligence only, while in other dimensions of intelligence he may be normal or even of superior ability. Under the treatment that aments usually receive, however, such abilities as they possess do not develop, and the ament who may have been deficient only in a few respects becomes generally deficient.

In contrast with the serious disorders and the amentias, there are maladjustments that appear to affect one trait, or only a few traits, of the person, who in other traits may be normal. Such limited maladjustments, however, may have deeper foundations, since a limited maladjustment may be the symptom first appearing in a pattern of symptoms that later becomes more comprehensive. A maladjustment of a limited sort, such as the tendency to epileptic seizures, may be so disadvantageous to the patient that he worries about it; the worry and the limitation of his opportunities for employment may constitute a causal pattern that produces a neurotic condition.

Some maladjustments, however, are limited abnormal traits; habits which are disadvantageous to the person and to other persons, but which are seldom symptoms of mental disorder. Such, for example, are the habits of snuffling, of gulping drinks and inhaling soup noisily, which we commonly describe as 'bad manners.' Even habits that are more seriously disadvantageous to the person, such as the habit of speaking in a whining or martyred tone or the habit of giving way to temper tantrums, are in some cases

merely abnormal traits—abnormal, because disadvantageous and avoidable, the person being otherwise normal.

Some abnormal traits, however, when closely examined are found to be symptoms of an incipient neurotic condition. A young man, for example, has the habit of contradicting the statements of other persons and of opposing their opinions. He may contradict statements and oppose opinions with which he really agrees. If others in a group approve of a record that is played, he has to disagree even if he really likes the record. Is this merely an abnormal trait of a person who is otherwise normal? No, it is a manifestation of a neurotic maladjustment, mild as yet, which will become serious unless something is done about it.

A stammerer might be supposed to be a person with a single disadvantageous trait, but, when examined psychologically, the stammerer is found to be suffering from a neurotic maladjustment, the foundations of which usually were laid in his early childhood. His stammering, in short, is not merely disadvantageous in itself but is the symptom of a neurotic condition. There is no sharp line of demarcation between neuroses and mere abnormal traits, but there is a continuous gradation from minor to major maladjustments. If you have an abnormal trait, you should find out whether it is a symptom of maladjustment or is merely a disadvantageous trait; it is well to consult a psychologist about it.

Some disadvantageous traits are built up through carelessness and/or ignorance. Some of the disadvantageous table habits are in this class. Some abnormal traits, such as the habit of slovenly speech, may be products of organic weakness or of sheer laziness. Some bad habits begin as responses to physical or physiological conditions; a person with a runny nose is apt to snuffle, and may, through a succession of colds in the head, form the habit of snuffling, although in such cases we cannot be certain that the colds

have been the primary causes. Gulping, fidgeting, and snuffling are in some cases mere 'tics,' the apparent causes of which are merely determiners of the particular tic the person adopts and not the causes of the tendency to tic.

We shall have more to say about minor maladjustments later in the book. For the present, it is sufficient to point out that the relation between the minor maladjustments and the more comprehensive neuroses is so close that we are justified in designating many of the minor disorders as 'neurotic maladjustments.'

5. *Amentias*

The assumption concerning the disorders we have so far discussed is that the persons afflicted with them had started as normal persons, and later had become abnormal; or, in the cases of a few abnormal traits, had been free from them, and later had acquired the traits. If, on the other hand, the person has been abnormal from birth, his maladjusted condition is described as *amentia*. The popular names for these abnormal conditions are 'feeble-mindedness,' 'mental deficiency,' and 'retarded intelligence.' There are, doubtless, cases of congenital amentia, produced by conditions *in utero*, but at present we have no way of distinguishing such cases from those produced by inadequate environments and insufficient opportunities in early childhood.

Some cases of amentia are due to obvious physical causes, such as microcephaly (abnormally small head); macrocephaly (abnormally large head, sometimes called hydrocephaly or 'water on the brain'); and hypothyroidism (which causes a child to be a cretin). In the majority of cases, however, there is no discoverable organic cause for the amentia. Accordingly, following the popular assumption that defects or conditions of which the causes are unknown are due to heredity (in the old fatal sense of the term), these amentias are said to be inherited. All we know about

these cases is that at some time in early life the mental development of the individual slowed down and that he did not thereafter achieve the standards of mental development set for his successive ages. As we have already said, for most aments, we do not know whether the retardation commenced *in utero* or after birth. Some aments, however, have appeared to be normal in mentality in early childhood.

Heredity, as we have already said, is a factor in the development of all traits, physical and mental; and retardation in a certain environment is due to the inherited tendency or disposition to develop improperly in that environment. This does not contradict the assumption that in a different uterine and/or postuterine environment, the individual might have developed more adequately. It should be noted that retardation due to microcephaly, macrocephaly, and cretinism is just as truly 'inherited' as are the retardations for which the causes are unknown. To assume that, for cases of the second sort, examination of the hereditary factor is unnecessary, and further to assume that the hereditary factor for cases of unknown causation is very simple, is to abandon the effort to discover the facts of human heredity.

The rating of aments by their mental ages or their IQ's seems to have fostered the notion that aments differ from one another only in degree of retardation—a very false notion. Aments who, as rated by intelligence tests, have the same IQ's, may differ in their actual mental abilities as much as do normal persons. The so-called 'standard' intelligence tests measure only a limited range of the diverse abilities that we loosely call 'intelligence,' measuring principally, and roughly, the sort of intelligence that is useful for children in schools. Even these measurements are invalid unless they are corrected by the opportunities and incentives the child has had to learn the answers to the questions asked him and to solve the problems presented

to him. No question in an intelligence test can be answered unless the child has previously learned the answer; no task can be carried out unless he has learned how to do it. In any stage of development learning is not conditioned simply by a mysterious 'inherited' ability to learn, but is conditioned also by previous learning and by opportunities to learn and incentives to learn.

Intelligence of any sort varies in different cases from extreme deficiency up to the level that is barely subnormal. This is true not only for the sort of intelligence measured by intelligence tests, which may be called 'IQ intelligence,' but also for 'intelligence' of other sorts, although the ranking of the individual in the IQ scale does not establish his rating in other sorts of intelligences, but establishes merely a statistical probability, which is not a high probability, except for those persons of extremely low IQ's.

We are accustomed to divide the range of retardations into three sections, designating those lowest in the range as *idiots*, those next above them as *imbeciles*, and those least retarded as *morons* (the Greek word for 'fool'). The lines between idiot and imbecile, between imbecile and moron, and between moron and normal are, of course, drawn somewhat arbitrarily.

This classification was developed on a practical basis long before the invention of the IQ, even before the invention of the IR (intelligence ratio) for which Terman substituted the IQ.

The *idiot* is an individual who is incapable of feeding himself and is incapable of controlling his excretions. He is still in the infantile stage, and his language is restricted to the sorts of sounds an infant makes before he has learned to talk. His ability to walk may develop a little farther than the infant's locomotion, to that corresponding to the walking of a normal child of three or four. His motor processes generally are not so retarded in development as

are his mental processes, his learning, mentally, having been defective presumably from birth. To assume, however, that his mind is that of an infant or normal child at any age would be fallacious.

The *imbecile* is less retarded than the idiot. He can control his excretory functions, and his motor processes may be as efficient as those of a normal child from three to eight years of age. He cannot protect himself against his environment but must be guarded as carefully as a young child. His ability to play is limited and may be absent, and of course he is incapable of any useful work. Although in some respects he may resemble a normal child of four and in other respects may resemble normal children somewhat older or younger, at no age is his mind that of a normal child of any age.

The *moron* is an individual who can protect himself against the ordinary dangers of his environment and can engage in useful work, if supervised by a boss. In early life he is deficient in ability to play in normal ways, and later, if left to his own devices, he is unable to support himself. If skillfully controlled by a supervisor (dictator), he may be a useful member of society. Some morons have demonstrated astonishing capacity for mechanical trades in institutions for the feeble-minded, but most morons are deprived of opportunities to learn trades in which they might be competent.

It is obvious that mental retardation is not determined by IQ's, although mental testers have established ranges of the IQ that more or less correspond to the practical section of *moron*. The IQ of an idiot or imbecile has no significance, since these mentally defective individuals cannot be subjected to tests for IQ intelligence comparable to the tests administered to normal children. As someone has said: "Idiots and imbeciles have no IQ's because they have

nothing with which to have IQ's." Mental testers, however, have assigned to idiots IQ's below 20 and to imbeciles IQ's between 20 and 49. These assignments are mere guesses and are not employed to determine the line between idiots and imbeciles.

Of equal importance is the fact that some persons whose IQ's are very high are really morons. They may be persons of genius in certain lines, but are incapable of managing their affairs, are constantly in trouble, and are troublesome to their families and friends, who must supervise their activities. On the IQ basis many successful businessmen turn out to be morons. They are not high in IQ intelligence, but are high in business intelligence, a form of intelligence that has little to do with IQ intelligence.

Morons can be subjected to intelligence tests, and their IQ's can be computed from the scores attained. The range assumed for IQ's of morons is between 50 and 100, 100 being assumed as the IQ of average persons in the general population. Standardization to find which individuals are really morons, incapable of self-direction, has never been attempted. Statistically, the range assigned may be valid, the majority of morons may have IQ's within the range; but for practical determination of moronity the IQ is useless.

Even for school abilities the IQ has only a statistical validity, establishing a probability as to the children's ability for school work. If a large number of children are divided into three groups—those whose IQ's fall between 70 and 80; those falling between 80 and 90; and those falling between 90 and 100—the child in the upper group has a higher probability of success in school work than does the child in the middle group, and the child in the middle group has a higher probability of success in school than does the child in the lower group. This is only a probability of the statistical sort, and because of the unknown factors that enter

into the determination of the IQ, it is impossible to predict with certainty how any individual child will fare in school. Perhaps a prediction is unnecessary, since schools infected with the virus of 'progressive education' treat all children as if they were low-grade morons.

DESCRIPTIVE AND CAUSAL FEATURES OF MENTAL DISORDER

1. *Symptoms of Disorder*

In diagnosing a case of mental disorder, major or slight, it is necessary to describe the patient's condition. The description is in terms of *symptoms* that are displayed. This is merely the initial stage of the diagnosis, for the completion of which the *causes* of the disorders must be discovered.

A *symptom* is an abnormal response or inhibition of response that has become habitual for the patient, otherwise described as an abnormal *trait*. The symptoms, however, are significant only when the diagnostician has discovered the *syndrome*, or pattern, into which the symptoms are organized.

Symptoms fall mainly into four categories, although there are some symptoms that are not easily 'pigeonholed.' The four categories are: motor symptoms; perceptual symptoms; affective symptoms; ideational symptoms. We shall consider these classes in the order in which we have listed them.

A. Motor Symptoms. Motor symptoms of mental disorder are movements or inhibitions of movements, or patterns of movement or inhibitions of patterns, which are abnormal, in the sense of being disadvantageous, in the circumstances in which they occur. Movements or inhibitions may be normal in some circumstances and abnormal in other circumstances. Laughter, for example, may be nor-

mal in some circumstances, but abnormal in others. Weeping is normal in a state of grief, but not otherwise. Inappropriate weeping and laughter both appear as conspicuous symptoms in hysterical cases.

Motor symptoms are of various sorts, including tremors, convulsions, fumbling movements in handling objects, motor incoordinations of other sorts, and a further long list. Tics are motor symptoms; stammering may be considered as a motor symptom. Paralysis is an inhibition, which may be a symptom of an organic disorder, but in some cases is a symptom of mental disorder.

B. Perceptual Symptoms. Perceptual symptoms are numerous. In mental disorders they are sometimes peculiar forms of blindness (anopsia), deafness (anacusia), and dermal anesthesia. There may also be hypersensitivity to light, sound, and dermal pressure. Such symptoms occur in neuroses, without known organic causation. False perception of distance and of direction may occur. The list of perceptual symptoms is a long one, but one which is frequent is *illusion*. Illusion is the perception of one thing, person, or event as being some other thing, person, or event. Mistaken perception occurs in normal life; but if the illusion is persistent or habitual, it may be a symptom.

C. Affective Symptoms. Among affective abnormalities that are often symptoms of disorder, we have already mentioned abnormal excitement and depression, as occurring in manic-depressive insanity and as occurring also in other mental disorders. Aches and pains may be important symptoms in neurasthenia, psychasthenia, and other disordered conditions. Euphoria (pleasure) may be a symptom when there is no normal cause or ground for pleasure. The affective characteristics determine the type of emotion that can occur. In the manic state of a manic-depressive patient, he can display only excited emotions; in the depressed state, only depressed emotions. This determination has nothing

to do with the emotions as popularly named, since the common names are determined by the cognitive factors (perception and thought) involved, not by behavior features or by affective factors.

The affective symptoms, in some cases, are of physiological origin, due to conditions or processes in the organism, especially in the visceral organs or circulatory system, or to changes in the activity of the endocrine glands. In other cases, however, the affective symptoms are results of disordered thinking.

D. Ideational Symptoms. In addition to the affective results of thinking, there are many factors of disordered thinking that appear as symptoms. Many symptoms that might, at first, appear to be 'motor' are really products of (expressions of) ideational disorder. Some of the ideational symptoms of mental disorder merit brief consideration.

a. Hallucinations. *Hallucinations* are processes of imagination (imagination responses) that, for the patient, pass as perceptions. The content imagined is deemed by the patient to be really perceived. The hysterical patient not only mistakes imaginary ailments for real ones, but may 'hear' voices and 'see' visions that are not really perceived, but imagined; that is, are hallucinatory. In a fevered condition or in delirium tremens (multiple neuritis) auditory, visual, and even dermal hallucinations are common. Hallucinations figure also in the syndromes of symptoms of some schizophrenic patients.

b. Delusions. A *delusion* is a conviction or belief that is contrary to fact, at least as the facts are viewed by normal persons. Delusions may be illustrated by those typical of many schizophrenics. The patient afflicted by *delusions of reference* believes that everyone is talking about him, looking at him furtively, or even plotting against him. Two persons seen whispering together he believes to be whisper-

ing about him. A chance word or phrase overheard is fitted by the patient into a disparaging remark or a threat.

A patient who has developed *paranoia* has *delusions of grandeur*. He believes that he is a person more capable and more important than he really is. He may believe that he is some great historical person, such as George Washington or St. Paul. On the other hand, he may have the delusion that in his own person he is the greatest inventor, artist, or statesman of his generation or even the greatest the world has ever produced. He may combine his delusion of grandeur with delusions of reference, and believe that his greatness is not allowed to be recognized because of the jealousy of other persons and of foul plots against him. An entertaining case a year or so ago was that of a student who went to the head of one department to get the department head to protect him from the Dean of Men, then went to another department to get protection from the head of the first department. The fellow was afflicted with delusions of reference, obviously, and probably with delusions of grandeur. The variety of delusions is great, and most 'normal' persons are more or less afflicted with them.

c. Obsessions. An *obsession* is a thought pattern of which the patient is unable to rid himself. He may recognize the thinking as absurd, but keeps thinking it just the same. In normal people, something irrelevant and unnecessary often is obsessive. A tune or a jingle keeps 'running in your head.' Obsessions do not always involve delusions; the case of a girl who, after treatment by metrazol shock, was afflicted by the obsessive thought that she was the Virgin Mary, although she knew very well she was not, illustrates this. She had the obsession, but no delusion.

d. Compulsions. A *compulsion* is an obsessive thought that a certain act must be performed, although the act is totally unnecessary. A patient may thus be compelled to wash his hands many times a day. A few moments after

washing them, and without having soiled them in any way, he must wash his hands again. Some persons who are normal in most respects have the compulsion to touch every tree or post along the routes they walk. Others have the compulsion to step on every crack in the sidewalk.

e. Phobias. The word *phobia* literally means fear, but the term is conventionally applied only to fears that are deemed to be abnormal. There are so many things concerning which people have 'phobias' that they have been classified under names derived from Greek words. Fear of high places is *acrophobia*. Fear of open spaces is *agoraphobia*. Fear of being shut in a closed room is *claustrophobia*. Medical dictionaries contain lists of nearly a hundred terms designating phobias of various sorts.

In some cases a phobia includes actual fear, but the name is applied more loosely to mere avoidance of certain things or certain situations, in which no 'emotion' of fear may be involved. A person who would experience fear if on top of a high building avoids such situations and so avoids fear. *Phobia* is one more term of which the actual meaning is not revealed by its etymology.

f. Amnesias. The word *amnesia* means literally 'not remembering.' The literal meaning is applied; the amnesic person has forgotten something. There are several kinds of amnesia, including retrograde amnesia; anterograde amnesia; and selective amnesia.

Retrograde amnesia is amnesia for a certain period of the past. The patient can remember what has happened since a certain hour, day, or other point in time, but is unable to remember anything he experienced prior to that time. The period for which he is amnesic may cover a few hours or a few days; or it may cover the whole of his past life prior to the critical date. Such amnesia does not involve lack of retention for reproduction, but only lack of mnemonic retention. The patient can think of contents experi-

enced during the period for which he is amnesic, but cannot remember them, cannot recognize them.

Anterograde amnesia is amnesia that continues to be inflicted. The patient continues to forget what happens in his experience. New experiences are forgotten so long as the amnesic condition persists. Everything the patient experiences continues to fade from memoric retention, although not necessarily from retention for reproduction, that is, recall without recognition. The condition of the anterograde amnesic has not been examined so carefully as has that of the retrograde amnesics, so we cannot be certain on this point.

Selective amnesia is the forgetting of items connected with a certain topic or topics, while items of other topics are not forgotten. The patient is unable to remember some names, while having no trouble with other names. Topics that are associated with troubles in past life may be forgotten. That this also is a factor of memoric retention, not of retention for simple recall, is probable but not certain. Normal persons are subject to selective amnesia. One may forget mathematics and be unable to remember important formulae that one has earlier known well, but does not necessarily forget items in history or the rules of punctuation. Amnesias, and especially retrograde amnesias, have been assumed by some theorists to be protective devices, or 'defense mechanisms,' against concerns that are, or have been, annoying or unpleasant to the patient. This is a possibility, although not a probability. Worry about a topic causes a neurotic person to forget other topics. It would be necessary, in order to support the defense-mechanism theory, to find out what a patient has been worrying about and to relate the topic of his concern with the topics forgotten. The fact that recall is possible, in retrograde amnesia, for items that are not recognized, recall without memory, is against the hypothesis.

Many cases of retrograde amnesia are fraudulent; a clever person is able to pretend that he has forgotten his past and to conceal his fraud. In such cases, the amnesia can well be considered as a 'defense mechanism.'

g. There are a number of other symptomatic features of thought and behavior, which are mostly matters of inhibition or of lack of abilities or of attainment.

Disorientation is a condition in which the patient does not know his whereabouts, in which he is 'lost.' There is spatial disorientation in some cases; in other cases the term disorientation is metaphorical in its meaning, the patient becoming 'lost' in his discourse, or 'losing the thread' of an argument.

Confusion is a term designating muddled thinking and is usually associated with, and revealed by, *incoherence* of speech.

Loquacity and *flight of ideas* (skipping from one idea to another) constitute another related group of symptoms.

The foregoing list of symptoms is merely illustrative. For the hundreds of other symptoms one must refer to a textbook on abnormal psychology.

2. *Syndromes.*

In Chap. I we pointed out that an abnormal process or an abnormal trait that might be a symptom of disorder is not necessarily a symptom at all. Abnormalities that appear as symptoms of one disorder appear also in other disorders; hence a few symptoms give no basis for the diagnosis or identification of a disorder. More important is the fact we have emphasized, namely, that many abnormal processes and traits that appear as symptoms of disorder occur also in normal persons. Look over the list of symptoms we have given and ask yourself if you have not displayed these same abnormalities. If you think you have not, you are deceiving yourself. Yet you are probably not an abnormal

person, not one afflicted with a mental disorder. Even symptoms that have become habitual as 'traits' are not by themselves signs of mental disorder.

Decision as to whether or not a person is disordered can be based only on the syndrome, or pattern of symptoms; still more emphatically, the diagnosis of a disorder—descriptive determination of the nature of the disorder—is based not on symptoms as such, but on the syndrome in which the symptoms appear.

The syndrome is not a mere cross section at a given moment, not even on a given day. It is, if it is useful for diagnostic purposes, a temporal pattern, and its development over a considerable period of time must be considered. Symptoms appearing in a syndrome, considered in its temporal aspect, may appear and progressively become more serious; but, on the other hand, they may drop out and be replaced by other symptoms. The order of appearance of the symptoms and the changes in their gravity are a part, and an essential part, of the syndrome.

Consideration of the syndrome of symptoms is a step in diagnosis, but only a step. Moreover, the syndrome cannot be determined until a *case history* has been constructed, and the case history gives further diagnostic aid. If, for example, a patient is known to have been consuming alcoholic liquor in large quantities, an alcoholic psychosis, such as delirium tremens or Korsakoff's psychosis, may be responsible for his condition, and the syndrome is considered in the light of the history. If a patient who displays a neurotic syndrome is found to have consumed raw milk in an earlier period, he may be suspected of having chronic undulant fever, and tests for that disease are in order.

A case history is an account of the environmental conditions to which the patient has been subjected, his responses to these conditions, and their effects on him. For a case of mental disorder or a maladjusted condition, the case history

is pushed as far back in the patient's life as is possible. Dietary habits from infancy up; diseases in childhood and later; family and school conditions; social activities and inclinations; ambitions and purposes; sexual habits, desires, and tendencies; and innumerable other details must be found out, although in the beginning it cannot be assumed that this or that feature of the patient's life has been a primary or secondary cause of the disorder. Case histories taken by the psychologist, of course, are far more searching than are the feeble case histories taken by a nurse when a patient is admitted to a hospital or than those taken by a medical examiner when one applies for life insurance. The psychologist indeed seeks to improve on the case histories taken by competent physicians in general practice, although the histories noted by general practitioners usually are far better than those of hospitals and insurance examiners.

We shall be little concerned with the organic psychoses, and our concern with the so-called 'functional psychoses' will extend no further than those which might as well be classed as 'neuroses.' We shall be directly concerned with the neuroses, because there is a gradation from neurosis down to mere maladjusted conditions. Our major purpose is to point the way to avoiding maladjustment, and to this end consideration of neurotic maladjustments is essential. Even the techniques by which maladjusted conditions can be remedied contribute to the understanding of the prevention (prophylaxis) of such conditions. For the neuroses and for minor maladjustments something can be done psychologically, and from psychology we can draw an armament for their prevention.

One can avoid a disorder only by avoiding its causes. To avoid an organic psychosis, one must avoid contracting the physical disorder that is its primary cause. If an organic psychosis is contracted, it can be cured only through treatment by physical medicine. Prevention and cure of the so-

called 'functional psychoses' and of idiopathic epilepsy are impossible, because their causes are matters of mere theory at present. If, in a case classed as a functional psychosis or as idiopathic epilepsy, we discover the primary cause to be organic, then the case is treated as an organic psychosis; if, on the other hand, the primary cause is found to be psychological, it may be treated as a neurosis. From all points of view, accordingly, the consideration of causes of disorder is a fundamental need, to which we shall now turn.

3. *Causes and Causal Patterns*

Determination of causes of disorders is called, abstractly, *etiology*, and we have been saying that the etiology of a disorder is its most important feature. This is especially true when we consider prophylaxis of disorder, whether of mental disorder or of physical disease or injury.

Competent psychologists, in diagnosing maladjusted cases, no longer look for 'a cause' of the disorder, but look for a pattern of causes; that is, a causal pattern involving several different causes. Theoretically, there may be cases that involve only a single cause; but if such cases occur, they are certainly few in number. A psychologist could determine a case as *monocausal* (having but a single cause) only after he had sought without avail for other possible causes. Even for organic diseases there is seldom if ever a single cause.

In other terminologies, what we here designate as a causal pattern is called 'the cause' and what we call causes are called 'causal factors,' but it is simpler to use the terminology we prefer. It is also a safer procedure, which avoids confusion.

Four classes of causes are conventionally recognized, both for physical diseases and for mental disorders. These are (a) primary causes; (b) predisposing causes; (c) precipitating causes; (d) sustaining causes. The use of the term

'primary' implies that the other causes are secondary, and we must accept that implication and may well make it explicit. For adequate application to mental disorders this list needs two additions: (e) determining causes; (f) sources of symptom contents.

A. Primary Causes. A primary cause may be defined as the cause without which the disease, or the disorder, cannot occur. Illustrations from physical diseases are clear. One cannot have tuberculosis without the pernicious activity of the tuberculosis bacilli. One cannot have typhoid fever without the activity of the typhoid bacilli. Discovery of the primary cause of a mental disorder is more difficult than is the discovery of the primary cause of a physical disease. There are tests for the presence in the organism of bacteria, parasites, and spirochetes, but the psychologist must depend on the case history and the syndrome. In every case, however, it is essential that the various causes be considered and an attempt made to determine which is primary. This is possible, of course, only for the psychologist who has had much experience with cases, and in some cases it is impossible to determine which cause is primary; but we are making progress toward efficiency in such determinations.

B. Predisposing Causes. A predisposing cause is one which prepares the way for the action of the primary cause. As the name indicates, it predisposes its victim to the disease or disorder. Here again, physical diseases and their causes supply the most adequate illustrations. Weakening by exhaustion or by exposure to cold may predispose a person to succumb to the attack of a bacillus such as that of tuberculosis.

Malnutrition or a previous weakening disease may predispose a person to a disease of which the primary cause is a bacillary infection, or may predispose him to a neurotic disorder, if and when a primary cause operates. In general, a predisposing cause weakens the resistance of the person,

and in some cases without this weakening the attack of the primary cause might have been withstood. In no case can a disease occur without the action of its primary cause, but in certain cases the primary cause is not able to operate unless assisted by a prior predisposing cause. Every autopsy conducted on a person who has died of a disease other than tuberculosis shows a 'tubercular infection' (evidence of tubercular infection), which had been taken care of by the activity of the organism and not allowed to develop into tuberculosis. Malnutrition, prior weakening by any disease, extreme exhaustion, or prolonged exposure to cold would have enabled the bacilli to do their deadly work. Predisposing causes are not to be ignored, either for physical diseases or for mental disorders.

C. Precipitating Causes. A precipitating cause is one which accelerates or increases a disorder already in progress and makes the symptoms apparent. A disease that is latent—that is, that has not yet shown its symptoms—may be 'precipitated,' its symptoms being made apparent earlier than they would otherwise have been. It is possible that a disease which was being resisted successfully by the organism, and which might have been overcome before it had showed the characteristic syndrome of symptoms, may be developed into a serious stage by the action of a precipitating cause. It is obvious that a cause that is predisposing in some cases may be precipitating in other cases. The classification depends on whether the secondary cause precedes or follows the primary cause. Exposure to extreme cold, exhaustion, or another disease may predispose to tuberculosis, or it may precipitate tuberculosis if the infection has already occurred.

Not all secondary causes, however, are interchangeable in this way. An emotional shock may precipitate a neurosis or a minor condition of neurotic maladjustment, but there is no evidence that such a shock can predispose to maladjust-

ment, although some psychiatrists consider emotional shock as even a primary cause of neurosis. If a boy commences to stammer, or is alleged to have commenced, shortly after seeing his father killed by an automobile or after finding his sister attempting suicide, we know that he either had stammered earlier or was already on his way to the development of a stammering neurosis. The majority of stammerers who are 'cured' at stammering schools relapse after returning to their homes, and in many of these cases the relapses are precipitated by emotional shocks. Without such precipitation the relapse would have occurred somewhat later.

D. Sustaining Causes. A sustaining cause is one which makes its advent after the disorder has been established, having had nothing to do, in most cases, with the original development of the disorder. The sustaining cause can maintain (sustain) the disorder after the original causes have ceased to operate. For neurotic maladjustments, these sustaining causes are of especial importance. A typical case is that of a man who had begun to stammer in early life, under a complex pattern of mistreatment by his father, to the influence of which he was predisposed by a defective diet. He was 'cured' at a stammering school, and after he returned home a relapse into the stammering habit was precipitated by a quarrel with the girl to whom he was engaged. He was again 'cured' and shortly afterward married the girl. The attitudes generated by the premarital bickering persisted and, although removal from home and a better physical way of life ended the original causal pattern, the stammering habit returned and persisted. We told him that his only hope was in either complete reconciliation with his wife or divorce, since it was clear that the persistence of tension in his marital life was sustaining the stammering habit. He could not get over the tension in his re-

lations with his wife and did not have the courage to obtain a divorce, so we suppose he is still a stammerer.

A symptom such as stammering, which impedes social relations and is a cause of worry and humiliation, may be a sustaining cause for a neurotic maladjustment of which it was originally merely a symptom.

E. Determining Causes. A determining cause is one which determines the symptoms that a neurotic or maladjusted person will display. Even in the organic psychoses it is important to distinguish the determining cause from the primary cause. In the diagnosis of neurotic cases, the discrimination of these causes is vitally important. Three boys who have become neurotic under the influence of similar primary and predisposing causes may display quite different syndromes of symptoms. One may have stammering and tics as his major symptoms; another may become apathetic and listless; the third may become uncontrollable and delinquent. Since nothing happens without cause, there are obviously different determining causes in the three cases.

Some patients suffering from delirium tremens display illusions as their conspicuous symptoms, while others manifest hallucinations. In cases of either symptomatic type there may be delusions or there may not be. The symptoms have, obviously, determining causes. Probably these causes are psychological, built up from habits of motivation and thought in earlier life. That in the neurotic cases mentioned the determining causes are psychological cannot be doubted. Since delirium tremens is an organic psychosis, the determining causes are not important. In neurotic cases, however, an unrecognized determining cause may prejudice the diagnosis. We know that stammering is largely due to correction of a child's speech, but we do not at present assume that speech correction is a primary cause. It is more probable that it is a determining cause, in the absence of which

the child would have been maladjusted, but with different symptoms.

F. Sources of Symptom Contents. We list three sources along with causal factors, because, as we have said, some psychiatrists have confused them with primary causes. A patient who is afflicted with hallucinations has inevitably hallucinations with specific contents. He sees or hears certain things fallaciously; that is to say, he imagines something. Unless he imagines something there is no hallucination. If he is afflicted with illusions, his false perceptions are perceptions of something. These contents of illusion and hallucination are related to past experiences of the patient and past habits of experience. The patient suffering from delirium tremens may persistently perceive the attending intern as a man who earlier had done the patient an injustice; or he may perceive the blonde nurse as the redheaded woman with whom he once had an affair. If he has visual hallucinations, they are false perceptions of elephants, snakes, or spiders, which he had seen earlier, either as living animals or in pictures. We do not assume in such cases that the past experiences have been primary causes of the disorders, although in cases of other types they are sometimes precipitating causes.

The contents of all symptoms are drawn from the past experience or experiences of the patient. There is no other source from which they could be drawn. It is sometimes possible to trace such contents back to their sources, to the particular experiences from which they were drawn; but we do not assume that these experiences are even secondary causes of the disorder. Some theorists, from their armchairs, have assumed that the sources of the contents of a patient's symptoms are the primary cause of his disorder. The compulsions, obsessions, hallucinations, phobias, and/or delusions of a patient classed as schizophrenic, for example, may center about dogs. It may then be found that in early

life the patient was attacked and bitten by a savage dog and that after this experience he showed an extreme perturbation that lasted for some hours. *Ergo*, these armchair theorists conclude, the horrendous experience was 'the cause' of his schizophrenia.

From this sort of armchair theorizing, psychiatrists of the psychoanalytic schools have proceeded to build up theories of 'mental traumata' (mental injuries) of various sorts. A mental trauma, according to their beliefs, leaves something in the 'unconscious mind,' which may, years later, pop out to afflict the person with mental disorder. Among the most entertaining of these alleged mental traumata is the 'trauma of birth.' It is assumed that the experience of being born is unpleasant to the baby, even if no physical damage is suffered. This is pure theory, for there is no evidence that the experience is unpleasant to the baby. This birth trauma is assumed to leave effects in the unconscious mind, and these 'unconscious' factors are assumed to be bases or causes of disorder in later life. Such rationalization is handy for armchair psychiatrists who are either unable or unwilling to make competent diagnoses, but a sagacious psychologist never resorts to it; if a psychologist cannot solve the problems presented by a disordered case, he admits the fact and does not apply psychoanalytical theories.

A horrendous experience, as we have said, can be a precipitating cause of a disorder already in process of development; but in such cases the disorder appears shortly after the experience. A disorder that appears years, or even months, after a mental trauma cannot be considered as being in any sense caused by the experience.

The contents of the patient's symptoms may be drawn from the shocking experience. If the horrendous situation had not occurred, the symptom contents, of course, would have been drawn from something else the patient had experienced. It is not without significance that comparative

surveys have shown that persons who have never displayed any mental disorder have had horrendous experiences in as great a percentage of cases as those who have displayed mental disorder.

The important question in diagnosis is not: What are, or were, the sources of the contents of the patient's symptoms? The real question is: What has caused him to have such symptoms? It may be useful, in some cases, to study the topics of a patient's symptoms. It may be useful to investigate the sources of the contents of his illusions, hallucinations, compulsions, obsessions, and/or delusions, although such investigation gives no help in diagnosis or in subsequent therapy. The real question, however, is: What causes him to have illusions, hallucinations, and/or other symptoms? It may be interesting to probe into the origin of a particular tic the patient displays, but the important question is: What caused him to develop tics? Any tic can be cleared up in relatively short time, but the patient usually then develops another tic. I have thought it might be interesting to chase a patient from tic to tic, but have never taken the time to do it, because there are more important things needed for the patient.

Neuroses and neurotic maladjustments, we have implied, are produced by psychological causes primarily, although organic conditions may predispose to maladjustment and may precipitate a maladjusted condition that has been in process of development. Such psychological causes operate, however, over periods of months or years to produce their final effects, and are not emotional crises, but prolonged states of abnormal response to bad environmental conditions. No emotional upset lasting some hours, or even several days, can be a cause of mental disorder of any sort.

If they were consistent, the theorists would hold that in the case of a patient suffering from delirium tremens, the multiple neuritis is due to the experiences from which the

contents of his hallucinations or illusions have been drawn; but no theorist has been consistent on this point, for they well know the primary cause of delirium tremens. To be consistent the psychoanalyst would have to conclude that the sources of the contents of the symptoms of all organic psychoses have been the causes of the psychoses.

Causal patterns, as we have indicated, work slowly to develop a neurosis or a neurotic maladjustment. An emotional shock involving pain, fear, anger, or grief may produce a state of *perturbation*, which may last minutes, hours, or days. While perturbed, the person is maladjusted to his environment and may display symptoms common to various mental disorders; we do not, however, call the perturbed person 'mentally disordered,' but reserve that description for those who are habitually in a disordered condition and display not merely certain symptoms but a recognizable syndrome of symptoms. Perturbation is a normal result of misfortune and calamity, a result often found in normal persons; it is neither a cause nor a symptom of mental disorder. The delayed action of psychological causes of disorder must be emphasized. In some cases, a neurotic maladjustment requires several years for its development.

IMPORTANT FEATURES OF NEUROTIC MALADJUSTMENTS

1. *The Psychological Approach*

The function of the psychologist in adjusting (or readjusting) a patient suffering from a maladjusted condition is complex. First, he must discover the symptoms that the patient displays and try to organize them into a syndrome. Second, he must search for the causes of the maladjustment; if he suspects that there are organic causes, he procures a medical examination, and, if the examination has positive findings, medical treatment is given thereafter. If no organic causes are indicated, the problem is simpler. Third, the psychologist must decide on the therapy or treatment that, from his previous experience with similar cases, he has found to be most helpful. These steps are not always taken in the one-two-three sequence. Often the treatment begins after a preliminary diagnosis, and during the treatment further information about the patient is obtained.

The procedure is complicated by the fact that few patients know what their fundamental problems are; they consult a psychologist about their symptoms, not knowing what the causes of their conditions are. A student, for example, consults the psychologist concerning her college work, in which her grades are declining. Is this her real problem? For her, *yes*; for the psychologist, usually *no*. She has declined in her working efficiency because of certain factors that she does not connect with her academic troubles, and

no one could guess what these factors are. They may be difficulties with her parents or with other members of her family; they may be economic difficulties; they may be social in a wider sense.

One case is typical of many. This concerned a girl who was falling down in her work and consequently in her grades. We found that she lived about twenty-five miles from the university and was assisting her father in conducting a small business. She dashed to the university in the morning and dashed home again when her last class was over. Her opportunities for making friends in the university were thus limited; her high-school friends had married or moved away or were otherwise lost to her. She had difficulty even in making acquaintances, alleging that she was timid about approaching other students, which meant in reality that she was timid about responding to the approaches of other students. This isolation, of course, was an important cause of her academic difficulties, since she constantly worried about her lack of friends and, as she eventually admitted, about her lack of boy friends; but she did not know that it was connected with her academic troubles.

The social factor, however, had its causes. Poverty and hard work had led her to neglect her appearance, and she was unmistakably unattractive, really dowdy in appearance. She knew this but thought it was unavoidable; she had what is called, in current slang, an 'inferiority complex.' A little instruction by a competent young woman in details of fixing her face and arranging her hair worked wonders, and she became a changed person, with more self-confidence and more attractiveness. Whether this revolution was completely effective, or whether it came too late, we do not know. This patient, like so many others, made no final report to us.

In other cases, a person applies for a 'vocational test' in

order to find out what line of work he or she should prepare for. In most such cases, there are problems much deeper than that of choice of a vocation. The student may be aware of the problems and may be worrying about them, but he does not know that his indecision is based on them.

We have said that the final function of the psychologist is to find methods of removing the causes of maladjustment or of alleviating their effects. Sometimes therapeutic treatment must be given by the psychologist. In some cases, the patient is able to act on advice given him, although in too many cases the patient will not carry out the plan advised except under supervision. For students who have no friends, we can often advise ways of making friends, but they do not always follow our advice. In the case of the friendless girl just described, we suggested that we might introduce her to a boy whose situation was similar to hers, but she rejected the suggestion. Later she changed her mind, but it was too late: the fellow had found a girl friend. In many of the cases of insufficient social life, which are so numerous in any university, we can help by suggesting suitable organizations with which the friendless student can associate.

2. Leading Traits of Neurotic Persons

We have earlier described obstacles to successful work and adequate living, either as symptoms of maladjustment or as causes of maladjustment. We indicated that in many cases a symptom is at the same time a sustaining cause, which assists in maintaining the condition of which it is a symptom. We have emphasized also the fact that an abnormal response is not always a symptom of disorder but may occur in normal persons. All of us have from time to time difficulty in concentrating, but, unless worrying becomes habitual and could be classed as a trait that interferes with work and life, it may not be even a danger signal.

We shall now describe other traits of persons who are neurotically maladjusted, traits that may not occur in all cases but which are so frequent that they are conspicuous symptoms, and frequent causes also, of maladjustment.

A. Worry and Worrying. The worrying habit is a trait symptomatic of various serious neurotic conditions and often is a cause that may expand a relatively simple maladjustment into a more comprehensive one. Neurotics worry about many things, over many problems, but the topics of worry are seldom the causes of the worrying. Worry, in fact, is most often a means of taking one's attention from insoluble problems by concentrating on lesser troubles. Disagreeable family relations or disagreeable social situations are frequent causes of worry, but the worrier often does not worry about these situations. Worriers sometimes make an effort to stop worrying, but this is merely worrying about worrying.

B. Improper Attention to Objectives. We have earlier emphasized the danger of mingling planning and consideration of objectives with work designed to attain the objectives, or, we might say, the attempt to make this mixture, which usually results in the stopping of the work. Here we need only indicate that this confusion is not only a cause of neurotic maladjustment, but also a symptom of neurosis well established, if it is habitual.

C. Introspection or Self-examination. The habit of self-observation is the most nearly 'general' symptom in neuroses of the grave or serious type. In lesser maladjustments it appears frequently and contributes to the development of these toward more serious forms. This trait may develop from continual estimation of progress, which in turn may be based on confused motivation. It may develop from the worrying habit, for most worriers eventually turn to worrying about themselves, while, on the other hand, introspection promotes worrying. Self-observation is observation of

one's affects and of one's organism and its processes, but it includes also attention to social relations as centered in one-self. The constant self-examiner asks himself: What kind of a person am I? How do I feel? What progress am I making? What do people think about me? Am I appreciated? As his trait develops, he thinks about himself more and more and considers other persons and the physical environment solely with respect to himself and his interests. He becomes progressively more attentive to his affects and his bodily processes. Although self-examination may be necessary at times as a detail in stocktaking and planning, it is dangerous if it becomes a trait, a symptom of neurosis and a cause thereof.

It might be supposed that from one point of view the confirmed introspector would be an excellent patient. Having examined himself during a period of months (more often a period of years), he should be exceptionally well prepared to give a detailed account of himself, of his troubles, and perhaps of the causal conditions that have afflicted him. The facts, however, are exactly the opposite. The longer he examines himself the less he knows about himself. Our modern methods of eliciting information from a patient consequently are designed with reference to the fact that any patient may turn out to be a neurotic and the fact that most patients are neurotic.

Since diagnosis depends upon obtaining information about the patient, and much of the information must be obtained from the patient himself, it seems probable that the process of examining the patient would be detrimental to him through confirming and increasing his introspective trait. This is no mere probability, but is a fact which we can certify. Examination in which a patient is made to talk about himself is damaging, unless the technique of examination is skillfully planned to furnish its own antidote. There is no doubt that the disastrous results of psychoanalytic

treatment are in considerable measure due to the technique that encourages introspection and strengthens the trait. Appalling as it may seem, we know that some psychoanalysts encourage or even require their patients to engage in introspection during the periods intervening between interviews. This is one of the many possible illustrations of the danger which arises when persons who are ignorant of psychology are allowed to tinker with neurotics and to apply principles and techniques of the 'armchair' sort.

D. Happiness as an Objective. Neurotics tend to estimate their conditions and their success or failure in life in terms of happiness and unhappiness. This tendency is closely connected with the introspective habit, each confirming and strengthening the other. This emphasis on happiness and unhappiness is well illustrated by the case of a patient whose condition and its causes were fully explained to him. He accepted the diagnosis but burst out with, "But I'm so unhappy," and was upset when we told him we didn't give a hoot whether he was unhappy or not. To him, as to patients who express themselves with more reserve, the only importance of their neuroses is their unhappiness, and the only end they desire is to be happy.

It would be fallacious to generalize that neurotics are unhappy because they are neurotic or to generalize that they are neurotic because they are unhappy. It is difficult to determine which is the cart and which is the horse.

Happiness is a worthy objective only if it includes happiness for others as well as for oneself. Happiness is an ideal that like other ideals is best attained by ignoring it most of the time. Constant preoccupation with one's own happiness is a sure way to make oneself unhappy. That preoccupation with one's own happiness and unhappiness is a neurotic trait is certain. That such preoccupation in its turn often contributes to the development of a neurosis is probable.

E. Inversion of the Field of Consciousness. In normal life bodily processes and affects (which are really bodily processes or bodily conditions) receive little attention, but form the 'background' of conscious content against which we perceive objects and processes that are external to the organism. Our bodies function best when we do not attend to them, and our relations with other persons and with our physical environments are more satisfactory when we ignore our affects and our other organic processes. The adequate relation of the external world to our organisms is analogous to the soloist whose voice stands out against the background provided by a restrained orchestra. The orchestra is important for the voice, but when the orchestra assumes the foreground and drowns the voice the music is ruined. Over-solicitude of the neurotic about the affect we call 'happiness' is merely one case of inversion of the field of consciousness. Attention to the body and its affects pushes the external world into the shadowy background.

Affects and organic sense data are important only when they are symptoms of organic disease. If aches, pains, or 'funny feelings' keep asserting themselves and insist on occupying the limelight, there may be something wrong. See your physician, and if he can find no physical reason for your unpleasant affects, a psychologist may help you to ignore them. In a vast number of cases, they are neurotic symptoms.

For the greater part of your life, the sound advice is: *Ignore your affects; it doesn't matter how you feel.* Attending to affects that are not really symptoms of disease is a symptom of neurotic maladjustment and, conversely, may contribute to the development of maladjustment. Attention to affects that really are symptoms of disease may make the disease worse.

F. Maladjusted Social Relations. Neurotics, as they become increasingly self-centered, become more inept in their

social relations and usually adopt one or the other of two ways of dealing with their social situations. One method, that of the *overt egotist*, or 'extrovert,' is the way of aggression, insolence, and disregard for others except insofar as they are useful to the egotist. His self-seeking is rude and ruthless, except insofar as he thinks that in particular instances it will pay him better to be polite and considerate. He tries to monopolize the conversation and to occupy the limelight. He may be clever enough to succeed in dominating other persons, or his self-assertion may be useless; but in either case he is socially an unpleasant person.

The other method is that of the *covert egotist*, or 'introvert,' who may be as selfish as the overt egotist, being, to himself, the sole source of values. He may be quite callous in regard to the interests of members of his family, who are expected to yield to him in all matters in which their interests conflict with his. Among people outside his family, however, he may still have habits of civility and consideration for others, which are at variance with his selfishness. He may, indeed, be civil to members of his family, although he is practically as ruthless as is the overt egotist. He is, in short, suffering from conflicting motives, a state of conflict that makes social relations difficult for him. He cannot force himself to dominate others as he would like to do, by rudeness and insolence; for he is intelligent enough to know the dislike that he would engender and sensitive enough to be afraid to encounter the disapprobation of other people. He solves his problem, therefore, by withdrawing from social relations; he avoids mingling in social groups and is inhibited in his relations with other individuals.

Egotism is found in normal persons usually as an occasional and inconsistent manifestation or even as a mild trait. The extreme egotist, who is consistent in his egotism, is a neurotic, whether he is an extrovert or an introvert. In either case he is suffering from the common neurotic trait

of centering his attention on himself. The determining cause of the introvert's withdrawal symptom is, as we have said, a conflict in motivation, a conflict between the desire to serve his own interests at the expense of others and the desire to conform to standards of manners and morals.

Social withdrawal is not only a neurotic symptom, but is almost always a sustaining cause of the neurosis from which it grows. The more the 'introvert' withdraws from social relations, the more neurotic he becomes. For most neurotics of the introverted type, an important feature of the therapy is reinducting them into social relations, and this often is a difficult undertaking.

G. Unreliability. Whether or not neurotics as a class are more undependable than are average persons we cannot say with certainty, but in working with neurotics we have found a high percentage who are unreliable. This unreliability shows itself in various ways. Some are notably careless in regard to keeping their appointments. Many 'walk out' on us without explanation when treatment is under way but not completed. As we said earlier, the tendency to give no report on the situation after treatment is ended is almost general. In most cases it is impossible to give instructions for therapeutic procedures to be carried on at home, because the patient cannot be depended upon to do the 'homework' or does it perfunctorily, neglecting the essential conditions he has been charged to observe.

We are on the whole inclined to consider unreliability as a typical neurotic trait, which is a product of the neurotic's self-centering. Looking on his personal interests as paramount in importance, he is selfish and inconsiderate. It is unfortunate for him that he carries this attitude over to his relations with those who go to great trouble in order to help him. Introspective self-centering seems to make it difficult for the neurotic to proceed with due regard to responsibilities that he assumes or that he ought to assume. Depend-

ability or reliability is one of the traits involved in the 'bourgeois morality' that has for so long been attacked and ridiculed by antidemocratic propaganda. The neurotic seems to be in no need of this propaganda, since he carries the seeds of unreliability within himself, but he responds well and easily to propaganda of that sort. It would seem that bourgeois morality and neurosis are incompatible.

H. Self-pity. At some point in the development of his disorder, every neurotic begins to pity himself. He is progressively handicapped by his disorder and by the causes, or what he thinks are the causes. He regards himself as a person who has misfortunes for which he is not responsible, and he broods introspectively over his situation. From this self-pity he may build up a resentment against persons whom he regards as unfeeling and unsympathetic, persons who do not cater to his demands and coddle him.

This self-pity and the self-protection it promotes accelerate the growth of the neurosis and may be important factors in developing a minor maladjustment into a comprehensive disorder, just as invalidizing and protecting an epileptic make his disorder more serious. It is necessary, in dealing with a maladjusted patient, to impress upon him the necessity for him to cease pitying himself—a prescription it is easy to give, but not so easy to follow!

The author once proposed, at a meeting of psychologists and psychiatrists, that there should be a 'Board of Asphyxiation,' before which all neurotics should be compelled to appear. The Board, it was suggested, should decide in each case whether or not the neurosis was mild enough to enable the patient to go about his business without giving much trouble to his family and his associates. If the case were adjudged sufficiently mild, the patient would be permitted to live; but if it were more serious, the patient should be chloroformed or otherwise asphyxiated painlessly.

When I finished, two psychiatrists jumped up to tell me

that I did not understand neuroses. The neurotics, they pointed out one after the other, are not shamming but are afflicted with real disorders. I replied that I knew that very well and that the Board, in my opinion, would not need to order any asphyxiations; that the patients, being given reasons for congratulating themselves on being allowed to live, would be apt to stop pitying themselves and so would improve. The two objectors admitted my point, but said, in effect: "It is impracticable; such a Board could not be established," which, of course, is quite true.

I. Suggestibility and Obstinacy. Every normal person is suggestible at times and may be obstinate in his opinions. In the neurotic person these attitudes become traits that are exaggerated. Suggestibility might be assumed to be the opposite of obstinacy, but actually the two traits are quite compatible and may coexist in the same person. Suggestion is the imparting of an idea or an opinion to another person, and suggestibility is the condition of a person that enables the opinion to be imparted. Obstinacy is holding tenaciously to an opinion once it has been adopted. The same person may adopt readily an opinion presented to him in a suitable way and may thereafter hold the opinion obstinately.

The suggestibility of the hysterical patient is only an exaggerated form of the trait that appears in neurotics classified under other subcategories. The neurotic is especially open to suggestions presented by a psychotherapist who is working on his case and can be made to accept any theory applicable to his case which is presented cleverly by the psychotherapist. The psychoanalyst builds up the patient's suggestibility, in the process of which upbuilding 'transfer' is employed. Transfer means causing the patient to fall in love with the psychoanalyst, it being an item of common knowledge that a person is more open to suggestion from one he loves than from other persons. Since the

patient, according to psychoanalytic theory, must believe in order that he may be cured, the increase in suggestibility is deemed essential. After accepting the opinions of the psychoanalyst, the neurotic patient will thereafter adhere to them obstinately. An 'Oedipus complex' built up by the psychoanalyst may be rejected at first by the patient, who denies that he ever had an erotic desire toward his mother; later the patient accepts it tentatively, and finally he accepts it without reservation and clings to the belief obstinately. It may, in fact, become a true obsession.

Opinions that a neurotic formulates, especially opinions about himself, are obstinately maintained. His attitude is that expressed in the phrase, "That is my story and I stick to it," which might be better expressed, "That is my story and I'm stuck with it." This characteristic of the neurotic must be taken into account in diagnostic work; in interviews with the patient it is necessary, in the early interviews especially, to prevent him from putting himself on record on any point that may be important.

3. *Neurotic Symptoms of Special Types*

In addition to the symptoms that appear widely in cases of neurosis, there are others that appear in some cases and not in others. The determining causes of some of these variable symptoms are known; but for other symptoms the determining causes are obscure. We shall consider a list of symptoms that is illustrative.

Stammering. There are several types of stammering, of which stuttering is the repetition of initial syllables or initial sounds of words. Another type is temporary inability to make any vocal sound; this is usually called 'speech blocking.' Defective speech due to malformation of the vocal organs or to carelessness is not called stammering. The determining cause of stammering is correction of the person's speech in childhood.

Tics. These are involuntary twitches of muscles or movements that are unintentional, but habitual. Tics are always symptoms of mental maladjustment, but the determining causes are obscure.

Apathy. Lack of energy or lack of initiative and industry may mean the beginning of neurasthenia, but, on the other hand, it may be a symptom of brucellosis (undulant fever).

Jitteriness, which is popularly called 'nervousness.' This is inability to be calm or quiet. This also may be an early symptom of neurasthenia. The determining cause appears to be a state of muscular tension.

Tension. Some neurotics are muscularly tense, without becoming jittery. The primary cause, as we have earlier said, is usually worry, but the determining cause for the tension symptom is obscure.

Variability of affective mood. This symptom is popularly called 'emotional instability.' The patient is elated, depressed, or irritable, without adequate reasons for the moods, and passes from one mood to another on slight provocation. Here, again, the determining cause is uncertain.

Persistence over a considerable period of time of a mood, which on slight provocation flares into an emotion of the same affective type. A person afflicted by a persistent irritability easily is stimulated to 'temper tantrums.' The determining cause is presumably organic.

Negativism. This is the habit of opposing opinions and principles offered by other persons. The negativistic neurotic disagrees with other persons on all points, without rational grounds for his disagreement.

Abulia, the inability to make decisions even on minor points. This trait involves not only inability to make plans for oneself, but also inability to carry out plans made for one, although the plans are understood and theoretically accepted.

Dependency. The neurotic may be unduly dependent on other persons for guidance or unduly dependent on a particular person, whom the neurotic expects to make his decisions for him.

Daydreaming. This symptom, as we have explained, is the trait of indulging in reveries at inappropriate times, a trait associated with difficulty in concentrating the attention. As to the determining cause of this symptom, we are uncertain.

Thumb-sucking. This is a trait determined by neglect in infancy and early childhood; a symptom of a predisposition to neurosis that awaits a constellation of primary causes.

Nail-biting. Chewing the fingernails is always a symptom of a maladjustment, which may be minor but is in danger of producing a comprehensive neurosis.

The symptomatic traits of which we have given illustrative examples should be distinguished from habits that are incidental or superficial, such as those which we commonly designate as 'bad manners.' All of them are exaggerations of undesirable traits that a normal person can easily find in himself, which are not symptoms of an underlying maladjustment and which may be attacked by suitable procedures whether they are found in an adult or a child. Symptomatic habits can be attacked directly in the adult or in the youth beyond the period of puberty, but in the child below the age of seven or eight the attempt to remedy the symptoms usually makes the condition worse. Some symptoms, such as thumb-sucking, may be remedied directly in the child of four or five, since the causes have often (but not always) ceased to operate by that time; but the attempt to remedy stammering in the young child merely confirms the habit. For this symptom we recommend ignoring the speech and rectifying the conditions that have produced the stammering.

4. *Neuroses as Systems of Habits*

The syndromes of neurotic symptoms consist of patterns of abnormal perception, abnormal feeling, abnormal thinking, and abnormal behavior. We have pointed out repeatedly that items of abnormal perception, feeling, thinking, and behavior are not in themselves symptoms of mental disorder; further, that a cross section of a syndrome at a particular time is not significant. A state of perturbation lasting some little time may resemble the syndrome of psychasthenia, hysteria, or manic-depressive insanity, but does not indicate the presence of the disorder that it resembles.

Abnormal responses that are symptoms are marked by persistence or by persistent recurrence. A symptom may disappear temporarily, but it recurs unless it is replaced by another symptom. A stammerer, for example, does not stammer at all times and in all circumstances. Some stammerers have periods of weeks during which they do not stammer at all. Some can talk normally with certain persons, but stammer when talking to other persons. Some boys stammer when talking to girls, but not when talking to boys, while with others the conditions are reversed. Some stammer at home, but not when away from home, while other stammers reverse this relation. There are variations from case to case as regards the circumstances in which the patient stammers, but in any case the stammering persists unless the fundamental disorder of which it is a symptom is cleared up.

Stammering, like all other symptoms of maladjustment, is habitual, a type of response that is predictable in any case. All symptoms of neurosis are products of habits—habits of perception, of feeling, of thinking, or of behavior. Some of the symptoms of functional and organic psychoses also are habitual in nature. No symptom is a habit itself; a habit is merely an abstract possibility that certain

responses will occur under certain circumstances. The habit of abnormal response, in other words, is the probability that the abnormal process will occur, and the probability is heightened by a learning process.

Specific habits or habit systems, such as those in which neurotic symptoms appear, may be called 'abnormal habits,' 'abnormal tendencies,' or 'abnormal traits,' the three forms of expression meaning the same thing. If we say that a certain person has the habit of introspection or the tendency to introspect, or the introspective trait, we mean by each statement that the person introspects too much and that, unless something is done to break the habit, it can be predicted that he will continue introspecting in the future.

A neurosis is really a system of abnormal response habits, a pattern of habits or habit pattern, but calling it a habit pattern does not explain the neurosis. A habit or habit pattern can be explained only by discovering or uncovering the causes of its growth. Looking on neuroses as habit patterns does, however, assist in the search for causes. Knowing that a disorder is a product of learning, we search more sagaciously for the factors that have produced the learning.

The occurrence of an abnormal response, we have explained earlier, is not a symptom, unless it is a part of a recognized syndrome. We are now in a position to understand an essential feature of syndromes. Abnormal responses, such as illusions, hallucinations, and delusions, are not always symptoms, because they occur in the lives of practically all normal people. If a person has the habit of having illusions, hallucinations, or delusions, then the habit may be a symptom of mental disorder. A symptom, as we now see it, is not a mere abnormal mental process, but is a habit of abnormal response, an abnormal trait, to use the equivalent expression. The syndrome of symptoms of a disorder is not a pattern of abnormal responses, but a pat-

tern of traits, of abnormal responses involved in habit systems.

Some writers object to the designation of neuroses as habit systems on the ground that the designation does not explain neuroses, a fact that we have just said is true. Curiously enough, some of these objectors claim that some neuroses are 'emotional disorders' and seem to think that this name somehow explains something. We go further and insist that all mental disorders are emotional disorders, but we do not assume that applying the name 'emotional' explains the disorders.

We have agreed that habit patterns are traits, but calling them traits does not make them more significant than does applying the name 'habit.' Some writers, however, seem to think that the term 'trait' has an especial value and that expanding it to 'personality trait' gives it an explanatory value. The term 'personality,' of course, is merely an abstract term referring to a person as an individual, but loose thinkers speak of a person's personality as if it were a concrete part of him, similar or analogous to his liver or his pocketbook. In some usages, personality seems to be a variety of 'soul.' Those who describe mental disorders as 'disorders of personality' or 'personality maladjustments' undoubtedly think that such terminology contributes in some mysterious way to better understanding of the maladjustments; but all the expressions really mean can be expressed by the simpler term, *personal maladjustments*.

In popular discourse, the term 'personality' has a wide range of meanings, and it should be avoided in discussions that are intended to be serious. In every statement in which the word 'personality' occurs its elimination has one of two results: either the statement is made clearer or its confusion of meaning is revealed. In some cases, a word can be substituted for it, but in many statements mere deletion of the term is all that is necessary.

Pseudo psychologists who busy themselves in the field of 'personality studies' and 'personality tests' (which has been aptly called the 'slum section of psychology') construct personality traits *ad libitum*, with no inhibitions from either psychology or logic. I am sometimes amused by blanks which I frequently receive to be filled out regarding applicants for positions who have given my name as a 'reference.' Some of these forms are to be checked for certain traits—intelligence, industry, cooperativeness, etc.—the checking usually being in a scale of excellent, good, fair, average, poor, bad. Included in the list of traits there usually is also one called 'personality,' and this once was a puzzle to me. Although the designer of the form may have meant by 'personality' any personal trait other than those specifically checked, I am now inclined to believe that the term is used in the most common popular meaning, namely, the general impression a person makes on others.

That symptomatic traits of disorder are acquired as are habits of normal life is evident from the way in which the traits appear. No habit is a tendency to perform in a certain way under all circumstances. A perceptual habit produces the response of perceiving an object only when the object is presented. The habit of thinking of a certain thing in a certain way does not mean that one is always obsessed by the thought. Writing one's name is habitual, but that writing response appears only when the conditions are suitable. One writes his name at the end of a letter or in the proper space in a document but is not continually writing it. Even persons who inscribe their names on walls of rooms do not do so when other persons are watching them.

In the same way, the symptoms of a disorder usually appear in some circumstances but not in others. We have indicated that stammerers have their individual patterns of stammering in certain circumstances and not stammering in other circumstances. The illusory perception of one per-

son as another person appears only when the first person is seen or his voice is heard. The delusion of reference appears when the patient sees two persons whispering or overhears a fragment of conversation. Even the delusion of grandeur is conditioned by circumstances. One difficulty in the diagnosis of a case is that the symptoms the patient displays in other circumstances may not be displayed in the presence of the diagnostician.

GOALS OR OBJECTIVES AND THEIR ATTAINMENT

1. *Types of Goal*

Every person who is above the mental level of the imbecile has goals, or objectives, which determine his performances. There are certain ends that he desires to achieve or attain, and his behavior and thinking are motivated by such desires. These ends or goals are sometimes called 'purposes,' but the word 'purpose' is ambiguous. It may mean the goal or may mean the desire to attain to the goal. The term *goal*, with its equivalent terms *end* and *objective*, is less ambiguous. Thinking of ends or goals that can be attained by certain courses of action may motivate one to desire the actions that are essential to the attainment of the goal, but usually there is no motivation unless the goal is thought of in the way that we commonly describe as *desiring* it.

All ends, goals, or desired results could logically be called ideals, but usually the term *ideal* is restricted to the designation of a goal that is distant. In popular thought, the ideal is often assumed to be the opposite of the practical, but this assumption is incorrect. Without ideals there would be no achievement in the life of an individual and there could be no social progress; hence we may well agree that ideals are the most practical features of human life. Thinking of ideals, and especially desiring to attain them, is essential for the production of practical results. The scrip-

tural statement about the evil man, "For as he thinketh in his heart, so is he" (Proverbs, 23:7), may well be extended to include all mankind. A person's ideals determine not only what, within the limits of his ability, he will do, but also the kind of person he will be.

There are several ways in which persons think of ideals or lesser goals, and the way of thinking determines the desire to achieve them. (a) One may think of an ideal or of a lesser goal as capable of attainment by oneself, through a procedure that combines action and thinking. These goals are *practical goals*, although they may not actually be attained. (b) The goal may be considered as attainable by other persons, but not by oneself. (c) The goal may be considered as one that it would be worth while to attain, but as being impossible of attainment by any person. Goals of the second and third classes are *theoretical goals*, the attainment of which is not desired. Goals of all three classes may be personal conditions, such as a state of knowledge, or situations in which one might be placed, or material possessions that might be acquired.

Goals of the third class may have effects, either good or bad. A successful artist may conceive of an ideal painting, which he thinks neither he nor any other artist will be able to paint. His conception of the ideal painting may assist him to do better work than he would otherwise do, but, on the other hand, consideration of the painting as impossible may discourage him.

Goals or objectives may be set at different levels. One may make his goal the attainment of top rank in his profession, while another has the objective of being successful but not that of achieving the 'top of the ladder.' The second person may rise higher than the first or he may not. Setting your goal too high may be disastrous. If you follow Emerson's advice to "hitch your wagon to a star," you may merely wreck your wagon.

In theory, every boy born in the United States has a chance to become President; but of the boys now between the ages of ten and twenty, only five or six can possibly succeed in attaining that goal. In theory, every young man who enters the service of a railroad has a chance to become president of the railroad; it has been done, in fact. Daniel Willard began as a trackwalker on the Baltimore and Ohio and ended as president of the corporation. How many of the thousands of employees of public service corporations have a chance to do likewise? One-tenth of 1 per cent at the most; the executive positions in any such corporations, even the minor positions, are limited in number. The ambition to go to the top, or even near the top, is impossible of fulfillment for the vast majority of persons, even for those who have the necessary abilities and industriousness. In many cases the disappointment of the desire to reach the top is a cause of discouragement, discontent, and bitterness, which prevent the person from attaining to the level which might have been possible if he had not set his goal so high.

The goal of the top of a profession or a line of business should be held only as a theoretical goal, the attainment of which may be possible but is not highly probable. Practical goals, which have a higher probability of attainment, will, when reached, put one in a position from which he can aim still higher. Set yourself the goal of *succeeding* in your chosen profession or line of business; then when you have achieved a moderate level of success, you can set your goal higher. The men who have become President of the United States have set for themselves successive goals in minor positions, often in local office or state legislatures, advancing next to governorships, or the office of United States Senator. Achievement of these intermediate goals is the useful condition for the setting of the highest goal.

There is an important distinction between an ultimate goal, which may properly be called an 'ideal,' and the inter-

mediate goals that must be attained in order that one may eventually attain an ultimate goal. The intermediate goals are 'ends' in a relative sense only. You get your car out of the garage 'to the end that' you may drive it. You stop at the gas station to the end that you may have gas enough to drive to the university. You go to the university to the end that you may attend classes. You attend classes to the end that you may receive credit, and credit is desired to the end that you may be graduated. For some students graduation is the ultimate goal, but for most students it is merely another goal in the series, a goal to be attained to the end that further goals may be attained. In such a series of goals enchaincd, the proximal goal (the next goal) is the one which is or should be immediately in process of achievement.

It often is necessary to revise our ultimate goals. Sometimes the goals need to be raised, and sometimes they need to be lowered to what had previously been considered as intermediate goals. Sometimes the necessary revision is not on account of mere setting of a goal too high or too low, but because the line of work in which the goal was set is found to be impracticable. A student's ideal, for example, may be a certain level of accomplishment in mathematics. Eventually he may decide to go beyond the goal first set, or he may find that he must be satisfied with achievement below the point at which he had set his goal. On the other hand, he may find that mathematics is not a specialty suitable for him and may then decide to set his goal in another line of work.

A goal, whether ultimate, proximal, or intermediate, is maximally effective, as we have already indicated, when the achievement of the goal is desired. It is not necessary that desire shall be continuous during the period in which one is working to reach the goal; continuous desire, in fact, interferes with the accomplishment of what is desired. During

the planning of the accomplishment, or preceding the planning, there must be definite desire to attain the goal, but, during the work itself, desire should be eliminated.

Planning is essential for the achievement of any important goal. The planning includes decision as to the intermediate goals that may lead to the ultimate goal; the scheme of relative ends must be considered in relation to the ultimate goal, and the relation of the intermediate goals to one another must be analyzed in order to be certain that the intermediate goals are properly consecutive and adequate for the purpose. The scheme of work necessary to attain the goals must be planned in a general way, but it is best not to plan in detail except for the proximal goal. When the proximal goal has been attained, the goal that then becomes proximal may replace the first one in the detailed planning. Having considered a goal, and having planned the work necessary to attain it, both the goal and the planning should be put out of mind, that is, should be 'forgotten.' If adequate attention has been given to desires, goals, and plans at the proper time, these factors produce their best results when attention is withdrawn from them, just as worrying is influential after the worrying has ceased. Planning and thinking of goals during time that should be devoted to work is as detrimental to work and accomplishment as is continuous estimation of progress.

It is useful to review plans and goals at times, and it may be necessary to revise them; but such reviewing and revising should not be frequent and should not occur at times that ought to be devoted to working to attain the goals.

Desire to attain an ideal or ultimate goal may be called 'ultimate' desire, and such desire breeds desire for the attainment of intermediate goals, as everyone knows. In other words, desire for an ultimate goal tends to spread to intermediate goals. Desire spreads also to a proximal desire from the desire next in line. This spreading of desire from

a farther goal to a nearer one is conventionally called 'motivation.' A motive is a desire to attain a somewhat distant goal (which may be an ideal), which desire produces a desire to attain an intermediate goal (which may be the proximal goal). In the illustration of the enchainment of goals that we presented, the student desires to get his gas because he desires to get to the university; he desires to go to the university because he desires to attend class; and so the desires spread down the line. The ultimate desire is usually influential only in the periods in which planning is done, but reverting to consideration of the ultimate goal is helpful if the consideration is given at proper times and not too often.

Among factors that contribute to accomplishment are certain physiological factors such as hunger, thirst, and the erotic 'urge.' These factors are commonly called 'drives' and their effects are produced through restlessness, which impels an animal to activity. The lower animals appear to have drives, although we cannot ascribe motives to them, since a motive is a desire, and we have no evidence that the lower animals have thought processes of the type that we know desire to be. An animal driven to activity by hunger may, by the activity to which it is impelled, find food; but that he thinks of food before or during his activity would be an assumption for which we have no adequate basis.

Conflict of motives appears to be a cause of neurotic maladjustment. A student who is keenly aware of the sacrifices his family makes to enable him to go to college realizes his duty to profit by his advantages in order that the sacrifices made for his sake may be justified. He desires to show the profit and also desires to succeed for his own sake. These desires often conflict, especially if he considers his duty when he should be studying and so commences to evaluate his progress while working; he becomes discouraged because he seems to be making no progress and is then

in danger of acquiring neurotic traits. As a matter of fact, no student can estimate his progress toward the goal he has set, from day to day. This is true not only for progress in knowledge but also for progress in the acquisition of skill. The student of the piano cannot note progress from day to day. It is true that you occasionally discover something important that you did not know until just now, but progress is not ordinarily marked by milestones of that sort, and what you acquire by routine procedure is usually more important than are the items of knowledge that you discover suddenly.

The person who is constantly checking on his progress toward a goal and who is considering his plans continuously is conducting his affairs as does a driver who studies a road map while driving. The driver, of course, will land in the ditch or in jail, and so, in a metaphorical sense, will anyone who mixes planning and checking with practical work. The merchant who attempts to take stock daily will find himself unable properly to conduct his business. In a similar way, you, too, ruin your business by constantly taking stock.

Objectives must be considered from time to time, just as the merchant must take stock periodically, but the periods must be infrequent. In considering your objectives you must plan the procedures that, so far as you can see, will enable you to achieve your goal. If you need help in the planning, consult someone who has had experience with similar problems. After making your plans, with or without assistance, dismiss consideration of objectives and plans for achievement. Having planned your route, put your map away and attend to your driving. When you reach a point at which a new decision must be made, draw up beside the road and take out your map again.

Life, in all its aspects, is most successful if plans for conduct are made and the conduct mechanized, the objectives and principles involved in the planning, the reasons for the

conduct, being ignored. Moral conduct is an excellent illustration of this fact. The person who, at every point at which a choice between right and wrong must be made, has to consider his moral principles in order to decide what to do in this particular case is hopelessly immoral, no matter how he decides. Sound morality is a habit of conduct, based on principles that, once adopted, do not need to be consulted often.

To some persons it seems mysterious that ideals, lesser objectives, and plans produce their best results when, after giving them due consideration, we cease to be conscious of them. Some of these mystified persons indeed follow the ancient procedure of resorting to a myth to explain the mystery—the hoary myth of the ‘unconscious mind,’ in this case. To explain the post-worrying effects of worry, the same myth is employed. The problem concerning the way in which such effects are produced is really part and parcel of the broader problem of *retention*, which we earlier discussed. While we do not yet know the exact neural conditions of retention, we do know its practical aspects. That which we study or practice may be forgotten, but it may be reproduced later. Even if one is unable to reproduce, or does not reproduce, that of which one has thought, we know that it has its effects on further thinking and perceiving and on behavior. In the same way, thinking about plans and objectives has its effects on further thinking after the original thinking has ceased. We are accustomed to refer retention to the nervous system, and the reference unquestionably is sound; but referring it to the nervous system does not ‘explain’ retention. The effect of thinking about objectives and plans after the thinking has ceased is no more mysterious than are the forms of retention with which we are all familiar. The various sorts of retention are all parts of the learning process or, rather, are essential conditions of learning.

The mystery mongers who resort to mythological explanations or retention have revived an ancient myth, which is found in various forms in ancient literature and ancient religions, the myth of a demon possessing a man. When you seem to retain some experience it is not really you who retain it, but the 'other fellow.' How the other fellow does it is not explained, and calling the other fellow the unconscious mind does not help. Against the mythological explanation is to be set the fact that psychologists do not assume that any experience is retained in a literal sense. All we mean by retention for reproduction is a modification of the nervous system in such a way that the conscious response can later be repeated. Retention for modification of other responses also is a modification of the nervous system, which alters the subsequent responses. The mythologists, on the other hand, regard conscious items as objects or entities that can be stored in the unconscious subcellar of the mind.

2. Sources of Failure

That the normal procedure for the attaining of a goal does not always produce the desired results is well known to all of us. Plans may be made as soundly as possible for the achievement of an objective that appears to be within the range of possible achievement, but the goal may not be attained. Among the reasons for failure, some of which have been mentioned already, we may list:

A. The goal has been set too high. Only a few contenders can arrive at the top of the ladder.

B. The line of achievement upon which the person has entered is unsuitable for him. The limitation of ability may be due to lack of adequate preparation in training or background, or it may be due to the personal factor that is popularly supposed to be 'hereditary,' but in either case the results may be the same. Ambition to be a great painter

or a great musician leads to disappointment for one who has not the requisite preparation or the 'native ability' (whatever that is). Even a person who might have become a musician if he had started his training in childhood is making a mistake if he begins to study music late in life. There may be a greater chance of success by one who begins to paint pictures after becoming adult, but the probability of success is not great.

C. A person who has the ability requisite for success in a certain line may have planned badly. Aside from beginning preparation too late in life, planning may be defective. The would-be physician enters the wrong medical school; the person looking forward to a business career finds later that the positions to which he aspires require college degrees; another finds that he is better fitted for positions other than the ones open to him.

D. Obstacles over which the person has little control may nullify even the best planning. A student who has planned to be graduated in medicine, and who has the requisite ability and preparation, may be unable to raise the money required to pay for the medical education. Some who have planned to marry are unable to carry out their plans because of the necessity of supporting parents or of providing for brothers and sisters.

E. Interference by other persons often prevents a person from attaining a goal that is well chosen and for which sound plans have been made. A youth plans to become an artist, but his father decides that he must enter business. Another youth plans to marry a girl who would make him a suitable spouse, but his mother or the girl's mother breaks up the plans.

F. Physical weakness or ill-health may be real obstacles to carrying out a well-planned program for the achieving of an appropriate objective. These obstacles, however, are

often mere excuses for failure, although in certain cases they are really preclusive of success.

G. Finally, abnormal traits are often effective obstacles to success in a program that otherwise has been well planned.

3. *Will Power as a Factor in Success*

In popular theories, failure is often ascribed to lack of 'will power.' The popular prescription 'use your will' or 'use will power' is familiar to most persons who have failed of their desired attainments. Some popular treatises on psychology endorse that prescription, but we have to admit that it is of no value. By will power those who use the term seem to mean effort, but effort, as we shall shortly explain, is useful only in a few circumstances and is detrimental in most circumstances.

The futility of will power as a means of achievement is well exemplified by the common cases in which the goal to be attained is the breaking of a bad habit that has been acquired, the elimination of a disadvantageous trait. Among such habits is alcoholism, the habit of drinking alcoholic liquors to excess. Some toppers cherish the habit and do not want to eliminate it. Others would really like to break the habit, but do not know how to go about its elimination. Still others who have a motive to break the habit have other motives that conflict, the motive to break the habit being too weak to win over the antagonistic motives. Corresponding to the objective of breaking the habit (negative ideal) there is of course the positive ideal of attaining to a state of habitual sobriety, and the motivations for the two objectives often conflict.

We shall confine our discussion to the toppers who are motivated to break the alcoholic habit and have no conflicting motives. The popular prescription for the toper is, "Use your will-power and stop drinking." William James,

in his *Principles of Psychology*, sixty years ago seemed to adopt this prescription when, in discussing the substitution of sobriety for the alcoholic habit by the process of 'tapering off,' he said, "In the main, however, all expert opinion would agree that abrupt acquisition of the new habit is the best way." He adds, however, in italics, "*if there is a real possibility of carrying it out.*" In various other passages in the *Principles*, James admitted the complexity of the problem and emphasized, among other factors involved, the importance of ideals. Some popular writers unfortunately have adopted James's prescription without his qualifications.

Alcoholism is a habit and, like all other habits, is a tendency to a series of particular actions or responses. If the toper can refrain from drinking at particular times, he is not breaking the habit; the habit is already broken! Telling the toper, "To break your habit, just stop drinking" is telling him, "To break your habit, just break it," and the toper wants to know *how* to break it. The prescription, "Use your will power" is a change in wording but not in meaning.

'Will,' which we prefer to call *volition*, is an important factor in human life, but it is not a mysterious energy that one can let loose for the performance of miracles. To consider volition as an energy is to approach the problems of achievement in a way that is impractical and often is destructive. As William James pointed out, volition is primarily a matter of anticipatory thinking. A fuller statement would be that volition involves consideration of objectives and depends on motivation. In discussing goals and motivation we have, as a matter of fact, been discussing volition.

The long list of patients under readjustment who had previously attempted to apply will power to their disadvantageous traits demonstrates that the naïve attempt to apply will power is not useful, but is detrimental. Volition

is nothing that can be applied directly, as you apply physical energy in pushing a stalled automobile. Most persons who employ the term 'will power' seem to mean effort, and we shall now turn to the consideration of effort, what it is, and how it can be used for practical purposes.

What is the effort of which the person making it can be aware? Any sort of effort of which no one can be aware is a fictional entity or process with which psychology has no concern. Now, the only observable effort is muscular tension. When you 'feel' or sense that you are making effort, what you are really doing is contracting or tensing your muscles. This tension may be of the muscles generally, or it may be of a limited group of muscles. In either case, the muscular tension stimulates receptors, which terminate in the muscles, and so initiates the response in which you are aware of the tension.

Effort, theoretically, is of two sorts. It may involve contraction of muscles that are essential for a certain type of behavior. Although a runner may run easily, that is, 'without effort,' he may, under motivation to win a race, exert the muscles that produce the running in a more extreme degree, and presumably he feels the effort he is making. On the other hand, a person who makes an effort to accomplish a motor task usually works with muscles that have not direct effects on his task. The runner, making an effort to win, contorts his face, clenches his fists, and installs other muscular tensions that have no direct effects on his running. We can explain these superfluous muscular tensions as being in accordance with the tendency of the neuromuscular system to work as a whole, but whether the runner would feel that he is making effort if he could run as fast with no superfluous muscular work is a question that at present we cannot answer. It is certain, however, that the superfluous muscular contractions are felt as effort, adding to the total effort felt.

In inhibiting actions pertaining to a habit one wishes to break, he may make effort of the first type. To refrain from taking a drink, he may tense the muscles of his arm to avoid grasping the glass of liquor before him. In most cases, however, the effort made and felt is muscular tension of a superfluous sort. In most cases, the tensions are in the muscles of the chest, although the diaphragm and the abdominal muscles may be involved also.

Effort may be useful if applied to particular responses, as in the case of the toper who makes an effort not to pick up the glass of liquor. If applied in a more general way, as in a vague effort to break the drinking habit, the effort is of no use whatever. This principle is of wide application. It is useless to make a general effort to be social, but, on the other hand, an effort to accept a particular social invitation is an excellent way of starting the building up of a new habit.

All motor performances are best performed with a minimum of superfluous muscular tensions, except in the few cases in which 'best' means quickest, as in the case of a foot race; in normal life speed is a minor consideration. Trying to draw a straight line by screwing up the face, sticking out the tongue, and twisting a foot around a chair leg does not promote a good performance. The tense driver is an unsafe driver. Making effort, except for particular performances, merely promotes the habit of being tense, which may become a serious disadvantage. For breaking a habit, we find it best to have the patient make an effort to do the things he habitually does, not to make an effort to refrain from them.

Making an effort to concentrate your attention on your work is merely distracting. In making the effort, you are tensing certain muscles, usually the muscles of the chest and arms, but it does not help, except in getting an initial start on your work. Responses made with effort are useful

only for starting toward the goal of making similar responses without effort. A neurotic who wants to be social worries about his social relations and tries by effort to force himself into social life. He is tense in thinking about his ideal, but what he needs to do is to plan a particular step toward it. If he makes an effort to call up a particular girl and make a date with her, he has started on the right road, but effort in connection with a general situation or a remote goal is inhibitory. The sound rule is to confine your efforts to achievement of proximal goals.

Effort to get good grades in courses is distracting if diffusely applied, that is, merely being tense about grades. With adequate motivation and sound plans, it may be useful to make an effort in studying on a particular assignment. Effort, in short, is in no wise an indication of voluntary response, but is rather an indication that volition is not operating with normal efficiency.

4. Changing Ideals and Lesser Goals

When and if one finds that goals that he has adopted are impossible of attainment, it is necessary to abandon the objectives and to adopt other goals. Goals must be practical, reasonably possible of attainment, or they are detrimental. Sticking to goals that have been demonstrated as impracticable is stupid; such adherence to impracticable goals prevents the attainments that might have been made in other lines. Usually this is a neurotic symptom and may be even a cause of neurotic maladjustment.

I recall a young man who had earlier the objective of entering the medical profession. This required a medical training for which he did not have the necessary money. He married, and marriage made his objective still more difficult of attainment. The years crept on, and he still hankered for the medical profession. He would not, or could not, abandon the yen and set for himself some other goal. Since

he did not get down to work, his self-centering was increased. His relations with his wife, whom he seemed to consider an obstacle to his progress toward his old goal, became strained. Eventually he was willing to let his wife support him. If earlier he had said, "Well, medicine is out for me; what else can I do?" he could have avoided neurosis.

*READJUSTMENT**1. Psychotherapy*

The attempt to remedy a maladjusted condition is sometimes called *adjustment* and sometimes *readjustment*, the two words being practically synonyms. Insofar as the techniques employed in adjustment are psychological, the process of adjustment is properly called *psychotherapy*. Although our main interest is in prophylaxis (prevention) rather than in remedy, it is helpful to pay some attention to the various systems of remedy for maladjustments, especially since sound prophylactic procedures and principles are developed from discoveries made in the diagnosis and treatment of maladjusted persons.

Psychotherapy is not restricted to mental disorders, but is useful as a supplement to organic therapy in many physical diseases. In the case of a patient suffering from tuberculosis, for example, the question of recovery or death is sometimes determined by the psychological treatment the patient receives. In a case of infantile paralysis, also, the psychological conditions may be the decisive factors. On the other hand, some of the systems that have been applied to mentally maladjusted patients are not psychotherapies, but are organic or physical therapies.

During the last hundred years many systems of psychotherapy have been devised for application to patients who are maladjusted in major or minor ways. Most of these systems have involved the assumption that, for a mental

maladjustment, mental treatment alone is necessary. Among the systems of psychotherapy was that of the Swiss physician, Dr. Dubois, who analyzed the patient's troubles and explained them to the sufferer. Another is psychoanalysis, which combined Dr. Dubois's analytic methods with theories drawn from popular superstitions. A third system was popularized some years ago by Coué, a system employing autosuggestion. Hypnotic treatment has been employed by other systems, and the popular prescription to 'use your will power' can well be called an application of a psychotherapeutic system. Any system that applies psychological techniques alone is a psychotherapy, whether the applications are limited to mental maladjustments or are extended to organic diseases also.

Among the organic therapies applied to neurotics, two are outstanding. One that was promoted fifty years ago by Dr. S. Weir Mitchell involved rest in bed for the patient and combined overfeeding with the rest. The other method was based on the belief that neurotic maladjustments are caused by 'focal infections' of the tonsils, appendix, or other organs. Proceeding on this assumption, the attempts were to locate the infection and eliminate it, mental treatment being disdained except as an incidental or supplementary application, as in a case of tuberculosis.

As we have said before, psychologists today recognize that neurotic maladjustments usually are produced by mental and physical causes cooperating. Hence modern psychological treatment includes not psychotherapy alone, but also consideration of physical factors such as diseased conditions, diet, etc. The psychologist, of course, does not pose as an expert in physical medicine; he sends the patient to a physician for diagnosis and for treatment if the physician finds any condition of an organic sort that can be remedied.

All the systems of psychotherapy have presented impressive lists of patients who have been 'cured' of neurotic

maladjustments. Systems based on conflicting theories present lists of equal impressiveness. If we accept the case histories at their face values, we must conclude that all systems 'work' or have worked for a time, equally well. If case histories can prove theories, theories that are in conflict with one another are proved. In this situation, practitioners following rival systems have usually taken the attitude expressed by adherents of rival religions, as, "My religion is true; other religions are false." By implication, at least, there is something wrong with the case histories presented by rival schools, but, in such a conflicting situation, all case histories should be equally suspect.

The religious analogy is not a mere parallel. Most of the practitioners belonging to the various schools of psychotherapy accept their theories as religiously as adherents of religions accept their dogmas. Psychoanalysts, for example, claim openly that no one has a right to criticize psychoanalysis unless he accepts it, for, if he does not accept it, he cannot possibly understand it. This principle, expressed by medieval theologians in the statement, "I believe, in order that I may understand," was rephrased by G. Stanley Hall, "O Freud, I believe! Help thou mine unbelief!" This religious attitude is not confined to psychoanalysts, but is common to all systems of psychotherapy, the patients being required to accept the doctrines on which the therapeutic applications are presumably based.

To evaluate case histories, it is necessary to ask certain questions about them; these questions we shall present and discuss as we go.

A. When a patient is discharged as 'cured,' is the 'cure' permanent or temporary? Often a patient who is 'cured' by one system of psychotherapy shortly thereafter submits himself to another system and is 'cured' again. For some persons being treated is a perpetual diversion, and these persons switch from system to system just as a patent-

medicine addict switches from one nostrum to another. Since cases are usually given by numbers or letters, not by names, it is not possible to compare lists and find out how many times any one patient was 'cured.'

B. To what extent was the reported cure merely a change of symptoms, leaving the patient no better off than before, or even worse off? We have seen many patients who had been 'cured' by this or that system of psychotherapy, who were seriously disordered and who probably were more maladjusted than they were in their original conditions. We have found that readjusting a person who has been 'cured' by a change of symptoms is a harder job than is that of readjusting one who has not been 'cured.'

C. To these two pertinent queries Pierre Janet has sagaciously added another, which we can paraphrase as: What did the psychotherapist really do to the patient? Janet points out that no accumulations of case histories can possibly prove a theory, because the histories report only the procedures that the practitioner thinks are germane to the theories he holds, whereas all psychotherapists in their practical work do many of the same things to their patients. These other procedures are sometimes implied but are never stressed in the case histories. Many psychotherapists of diverse schools actually do help some of their patients; and some of these practitioners will admit, in their confidential moments, that in their actual work they ignore the theories to which they are officially committed and use 'common sense.'

Among the common points in the treatment of patients by practitioners whose theories are diverse, we may take as illustrations the following items.

a. The therapist is sympathetic toward the patient, and this sympathy 'bucks the patient up.' The neurotic, pitying himself, craves sympathy, and the fact that the therapist sees the patient frequently is usually sufficient to convince

the patient that the therapist sympathizes with him, even though the practitioner is being well paid for his attention.

b. The patient has a chance to talk about himself, and to any neurotic this opportunity is welcome.

c. The therapist presents to the patient the theories of the school to which the therapist subscribes. With many sessions of induction into the mysteries of the healing cult, the patient acquires a new intellectual interest, which diverts him from attention to his customary worries and preoccupations. If the theories are presented in terms of concepts that are not very familiar to the patient, his lack of comprehension is an asset, for the average person is more interested in concepts that are unintelligible to him than he is in simple intelligible facts. For example, the movie producers discovered by accident that a film that the spectators cannot follow is apt to be a great success. The important thing is that the theories be presented as 'the last word in science' and be reiterated and elaborated in forms that sound profound and erudite.

The theory of the 'unconscious mind' and that of the marvelous power of the 'libido' (erotic desire) interest uncritical patients greatly, and if they are admitted to the inner mysteries that are withheld from the general public, they feel that they are being 'educated' in a marvelous way. Theories of will power, of the power of autosuggestion, of the influence of mind over matter, which are propounded by other schools of psychotherapy, seem to be as potent if presented by skillful talkers.

d. Religious faith in the doctrines presented is demanded or inculcated by many of the therapeutic systems, and this is a factor that is not to be ignored. Acceptance of a doctrine, with a growing faith that acceptance of the doctrine will save the soul, or will cure the disorder, is an actual therapeutic factor, not only for mental maladjustments, but even for organic diseases or injuries.

Of the four common factors in various systems of psychotherapy, the first two are obviously detrimental to the patient, although they may produce a change of symptoms that passes for a 'cure'; but that the last two are beneficial there is little doubt. New interests are important for the neurotic patient, and the value of religious faith must be admitted. These factors, however, are usually ignored in the case histories that are presented as 'proofs' of the validity of theories on which psychotherapeutic systems are ostensibly based.

D. Before evaluating a system on the basis of case histories presented it is wise to discover if possible what case histories were omitted. It is easy to show the validity of any system if all cases tending to prove the opposite are deleted from the records.

Many cases are treated for a time and then abandoned. Sometimes the case is abandoned because the patient's money has given out. After a patient is no longer able to pay, the commercial practitioner may have no further interest in the case; he is not in practice for the fun of it or for benevolent reasons. We have had to help persons in just that situation. Real physicians, as we know, do much free work; and I have never known one to refuse to treat a patient because the patient had no money.

There are other reasons for abandoning cases, however. The practitioner after weeks of work with a patient may have gotten the victim in such a state that he doesn't know what to do about it and so abandons the case. Cases abandoned for any reason are extremely unlikely to be included in the lists of case histories.

The points that we have presented and discussed briefly are obviously points of difficulty in the development of sound psychological methods of readjustment. Progress in this field is a matter of trial and error—a process of trying various methods and finding the method that seems to work.

In this respect, psychotherapy is subject to the difficulties that for so long a time afflicted physical medicine. The fact that patients got well in spite of the treatment given them was often taken as an indication that they were 'cured' by the treatment. In physical medicine today, tests on animals are often useful. In some cases the results obtained from animal experimentation can be applied directly to human beings, but in other cases the animal experiments merely give suggestions as to what might happen in human cases, further tests on human beings being required.

Physical therapy applied to neurotic patients has generally been inefficacious unless combined with psychotherapy. The shock treatment is an illustration of this. Insulin shock, metrazol shock, and electric shock destroy brain cells and set the patient back to an infantile condition, in which he is more easily controlled; but unless psychological conditions are changed, the patient develops a worse condition than that which originally afflicted him. As for the theory of focal infection, that has practically been abandoned.

As for case histories, we can go beyond Janet's statement that no accumulation of case histories can possibly prove a psychotherapeutic theory and say that it requires a sound theory, adequately based on psychology, to validate any case history. For the present, case histories are to be regarded, not as proofs of theories, but as illustrations thereof. Evaluation of case histories must have regard to the psychological soundness of the theories involved and to the competence of those who apply the principles and interpret the results.

In the development of psychotherapeutic methods there are two dangers that are to be avoided. (a) It is dangerous to start with an arbitrary theory. Theories and principles must be developed from adjustment work itself, developed, of course, in accordance with sound psychology. The

trouble with most systems of psychotherapy is that they started with theories adopted from popular superstitions and have applied these theories until the system has broken down. (b) It is dangerous to develop principles of normal psychology from study of abnormal persons. Freud proceeded on that plan, and the development has failed. The procedure must take the other direction; by applying principles of normal psychology to abnormal processes it is possible to understand abnormal processes and abnormal persons.

In the development of methods of psychotherapy and the study of abnormal psychology, it is of course essential to examine and study abnormal cases and be able to distinguish them one from another. The investigation of so-called 'experimental neuroses' in animals illustrates this need. Dr. John B. Watson suggested that the production of neurotic conditions in the lower animal might throw light on human neuroses; Pavlov receives credit for this suggestion, but we know that Pavlov derived the suggestion from Watson. The first work on experimental neuroses in rats was unscientific and misleading because the investigator did not know the difference between neurosis and epilepsy. Subsequently, other investigators have succeeded in making rats maladjusted in ways that can reasonably be called 'neurotic.'

2. Case Histories in Relation to Etiology

We have explained that, in addition to finding the symptoms displayed by a maladjusted patient and organizing them into a syndrome, it is necessary to discover the cause of the maladjustment and that for this purpose a case history is necessary. Information about the patient is sought from various sources. If the patient is a youth, information may be obtained from parents, but parental information is usually not reliable except on points relating to overt events. Information from brothers and sisters is more reliable, and

associates who are not related to the patient are usually judicious in their contributions. Employers often supply vital information. On the whole, all persons who are sources of information are prejudiced; their information is distorted by their personal points of view, and near relatives are especially apt to be prejudiced. Hence information must be obtained from many sources in order that one piece of information may be modified by other items from other sources.

For patients beyond the period of adolescence, the main sources of information are the patients themselves, but the reliability of such information is dependent upon the method by which it is obtained. Questionnaires to be filled out by the patient should not go beyond facts that are matters of record elsewhere: name, age, address, telephone number; names and ages of parents; number of brothers and sisters and their ages; schools attended and periods of attendance; nature and periods of employment; such matters may be filled in on questionnaire sheets, but beyond such matters of record answers to written questions should not go. Answers given orally to formal questions are usually obstructive to the securing of reliable information. Avoidance of formal question and answer is especially important in the early interviews but may be relaxed in later consultation.

The reason for avoidance of formal questioning on vital points should be obvious. The patient's information about himself is not reliable; however, by formulating an opinion he has fixed it, and his further information is colored by the formulated expression. On this account it is inadvisable for the psychologist to take notes during an interview, since the patient, knowing that information is jotted down, pays attention to the statements he makes and remembers them. It is well, in the early interviews, to prevent his making flat statements on points that may turn out to be important. If, in a casual conversation, the patient appears

to be in danger of making a formulated statement, his attention should be called to some other point. Sometimes, in the same interview, reverting casually to a point previously considered may elicit information that could not have been obtained by persistence at the time when the point was first brought up.

Remarks that are not answers to questions are often of maximal significance. One patient, afflicted with color blindness to a serious degree, we suspected of dietary deficiency in respect to animal proteins. Answers to casual questioning concerning the amount of meat eaten seemed to indicate a sufficiency, but we did not consider the answers satisfactory. At the end of the interview we suggested the use of vitamin A, but said that it might not help him unless he ate a reasonably large helping of red meat at least twice daily. The youth then burst out with, "Do you want to make a cannibal of me?" We replied that we had not suggested human flesh, although it might serve the purpose if he could get it. His explosion at the thought of eating meat twice a day confirmed our suspicions that he was not eating meat in any considerable quantity. In another case, a patient who averred in answer to our question that he was eating 'plenty of meat' was eventually discovered to have been eating the equivalent of a piece of steak as large as two of his fingers, once a week.

Casual questioning, which we might call prompting, with no taking of notes, is the essential method of obtaining information from a patient during the first few interviews, but after the foundation has been laid, more direct questioning may be employed. This casual procedure has further advantages in that the psychologist may later revert to points considered in earlier interviews to refresh his memory, and, since no notes have been taken and the memory of the psychologist is presumably not clear, the patient may give a

different story the second time, since his first story, not having been stereotyped, does not hamper him.

Frequently, the patient spontaneously corrects in an interview a misstatement made a few days before, but in other cases the point must be approached by the psychologist from a new angle, in order to obtain a correction. Two cases will illustrate the difference. One was that of a man whose ostensible trouble was that he was falling down in his business ability. When we asked him how he was getting along with his wife, he fairly beamed. His relations with his wife were perfect, he said. Well, that statement was not questioned; we must accept a patient's statements even if we know they are untrue. In this case, the statement was accepted as possible, but its probability was left to be determined. We gave the patient a week before he came back. He had hardly seated himself for the second interview before he said, "I gave you false information last week; there is something wrong with my marital relations." Then he related some incidents, which were mysterious to him but which were intelligible to a psychologist. His whole neurotic condition was due to worry over the mysterious behavior of his wife, but his previous statement he had thought, at the time, was true.

The second case was that of a young woman who wanted to take a vocational test to find out whether the line of work in which she was engaged was suitable for her. Suspecting that her vocational interests were merely 'fronts' for her real troubles, I conversed casually with her for nearly an hour. I found that she had departed from the religious life of her parents, but she alleged that that was of no consequence. Her family, she said, had agreed that they would go their way, and she could go hers. She had some questions to ask about illicit sexual relations, but denied that it was a matter of consequence to her. When she left, she was told to come back the third day from then if she

cared to do so. Although the intervening time was shorter than we would have wished, it was decided to put the matter directly before her at this second interview. "Let me see," I said, "if I remember your circumstances correctly, you have two sources of worry. One is the religious difference between you and other members of your family." "Yes," she replied. "The other," I continued, "is the problem of illicit sexual intercourse." "Yes," she agreed. Of course I remembered her denial of both these points, but, since they had been apparently accepted as of no significance, she was able in the period of two days to come through with the truth, which brought her case down to 'brass tacks.'

The unreliability of the patient's report is not due to an attempt to 'cover up' or deceive. Such an attitude may be found in the first interview, but, if the patient is skillfully handled, he thereafter does his best to give true information. His difficulty is due to his being really confused about himself and his circumstances, and hence his statements are misleading to himself as well as to the psychologist. It is therefore important that he shall not stereotype his statements, which would not be important if he were deliberately lying. It goes without saying that similar cautions must be observed in obtaining information from his relatives if they are upset by his case, as they usually are.

After the psychologist in charge has had one or two interviews with the patient, it is advantageous to turn him over to an assistant who can be depended upon to follow the suggestions of the psychologist and not to try any schemes of his own devising. For a patient of college age, an assistant of his own age group is desirable, as the younger person often obtains information the older psychologist does not. This is not because the patient is unwilling for the psychologist to know the facts, as he is always given to understand that whatever the assistant finds out will be passed on to the psychologist in charge, and vice versa; it is because in

talking to a person near his own age he is in a different situation, and matters of importance occur to the patient that would not come up in conversation with an older person.

For a woman patient, a woman assistant is desirable, in spite of the difficulty in finding competent young women who are interested in training themselves for the tedious routine of adjustment work. Another difficulty arises from the fact that many women, according to their own admissions, prefer to discuss their personal problems with a man rather than with another woman. These two difficulties may, indeed, be connected with each other. The impression has spread, at any rate, that women are less efficient psychotherapists than men. However, any prejudice a woman patient has is easily eliminated as soon as a really competent woman assistant takes charge. A middle-aged patient sometimes objects to a young assistant, but usually a young assistant is acceptable to patients who are older and is successful with them. In any case, the assistant is accepted because he or she is guaranteed by the psychologist in charge and is known to be working under his direction.

Two competent persons working with the same patient make more rapid progress than does either one of them alone, in the same period of time. There is a further advantage in the adult cases. After the two have come to tentative conclusions about the case, and the patient has become well accustomed to both of them, a real 'clinic' may be staged. This is a conference in which the patient is metaphorically laid on the table and dissected. His traits and his conditions are discussed as frankly as if he were not present. The patient is not questioned; in fact attempts are made to keep him out of the conversation. It might be supposed that this procedure would be embarrassing to the patient, but we have not found this to be so in any case.

Eventually, the patient is permitted to break into the conversation, and information not previously elicited may

be brought out, although that is not the main purpose of the session. The real purpose is to impress on the patient the therapeutic measures that have been prescribed for him and to give him a deeper appreciation of his condition and of the obstacles to his recovery. In one case, the patient, although well over twenty years old, was still under the domination of his mother. He had a two-week vacation from his job and wanted to take a short sea trip. His mother objected; she said she might become ill and would not be able to get in touch with him. (The mother, of course, was neurotic herself.) She told him he should go to San Francisco and visit friends of the family, so that she could telephone him if she became ill. We urged the fellow to assert his independence and take the sea trip, but we got nowhere until after a session in which we discussed his lack of 'viscera' and other weaknesses. After the patient had gone, the assistant remarked that he had never seen the patient show so much 'pep' as he did when he walked out. He took the trip, and his mother, of course, did not become ill.

The description of methods for diagnosis and treatment may seem discouraging, since it appears that repeated interviews are necessary and that much time and labor are required by any case of serious maladjustment. This appearance is the truth. Adjustment is a tedious and laborious process, and hasty work with patients is a damage to them, rather than a help. For prevention of maladjustment, or even for remedy of a minor maladjustment, advice briefly given may be useful; but for patients who are maladjusted to a serious degree, a hurried interview, a superficially contrived case history, and a hasty prescription are wastes of time, although in commercial practice this procedure is common. Every maladjusted patient treated by a competent psychologist requires much time. An adequate case history that reveals the causal pattern of the disorder

cannot be thrown together in a hurry; therapy requires further time and cannot be hurried.

Many maladjusted persons are impatient; they seem to expect that after diagnosis there will be some procedure similar to the waving of a stage magician's wand, and 'presto chango' a miracle will occur. Patients who have been treated by any of the commercialized systems of psychotherapy, from which treatments they have not benefited, are less apt to be impatient than are others. No miracle is possible; a person who has spent months in digging himself into a pit cannot climb out in a jiffy, although the period of readjustment may be shorter than the period in which the maladjustment was acquired.

As for avoidance of neurotic maladjustment, the main principles to be followed could be given summarily in one lecture. Such a presentation, however, would be absolutely useless and is properly confined to courses that are hopefully called 'Mental Hygiene.' We know that the conditions of adjustment and maladjustment must be presented in detail sufficient to make the principles significant. This laborious procedure is apt to be tedious to students, who would prefer to have presented 'in a nutshell' the matters that consume more time and of which the bearings on the actual problems are not evident in the beginning. The significance of our presentation may not be evident to you until later years, when you will have had more experience in life and will have encountered some of the problems and situations with which we have been dealing. If the problems do not crop up in your own lives, they will be met with in the lives of your friends or your pupils or your children.

3. Causes of Maladjustment

We have emphasized, and may now reemphasize, the fact that, in the production of most neurotic conditions, both mental causes and physical causes are involved. The proba-

bility that causes of both sorts are involved in all neurotic conditions is high. That the primary causes of neuroses and neurotic maladjustments of lesser severity are psychological, and that the physical causes are secondary—predisposing, precipitating, and sometimes determining—may be accepted now, and no disorder should be called 'neurotic' unless there is a strong probability that the primary cause is psychological. This leaves open the problem of the disorders that have been diagnosed as neuroses but that are associated with Brucella infection. Shall we class these disorders arising from undulant fever as organic psychoses? Or shall we assume that even in those cases the organic disease is a secondary cause and that the primary cause is mental? Fortunately we do not have to decide that point immediately.

We may also reemphasize the fact that organic conditions that may be primary causes of mental disorder include diseases and defects of the nervous system. As for secondary organic causes of neurotic conditions, we may reiterate that any organic condition that weakens the person may be a predisposing cause. Diseases such as measles and scarlet fever may leave a child weak for a long period, during which the psychological causes have opportunity to produce their deadly effects. Among other common predisposing causes are oversecretion or undersecretion of one or more of the hormones, such as those produced by the thyroid and the pituitary glands; persistent digestive disorders; overexertion; insufficient rest; and exposure to cold and wet. These are but illustrative samples of organic factors that may predispose to neurotic disorder and that, in some cases, are sustaining causes.

For all patients suffering from maladjustment, except those whose disorder is trivial, a competent medical examination is necessary, in order that any hidden organic disorder may be discovered and, if possible, remedied. The

problem of obtaining a competent physical diagnosis is often a serious one. Often a physician overlooks a physical condition that a more careful examination would reveal. We have known physicians of supposed competence to fail to find serious tuberculous lesions in a lung. We recommend consultation with a physician of the type known as 'general practitioner,' not a specialist. If the general practitioner discovers a condition that needs attention from a specialist, he will call in the proper specialist and tell him what to do.

The dietary defect that is commonest among neurotics is lack of adequate animal protein in the diet. Most neurotics are vegetarians and have been vegetarians for the greater part of their lives. Children fed solely on the diet of cereals and strained vegetables, which was once fashionable, are apt to remain vegetarians for the rest of their lives. Experts in physiological chemistry have warned the public that vegetable proteins cannot replace animal proteins in the diet, and even the dieticians have become better oriented. The diet now prescribed for infants probably will decrease the number of neurotics in the population.

It is known that a diet deficient in protein disorganizes the livers of rats to such an extent that they cannot utilize vitamin A. That protein deficiency has a similar effect on human beings is probable, and it is certain that animal proteins are needed by human beings. Accordingly, we advise neurotics to eat meat plentifully, meaning by 'meat' beef, veal, mutton, lamb, and pork; fish and fowl are not adequate substitutes. Almost all persons called 'color-blind' have turned out to be eaters of little meat, if any. As might be suspected from this fact, the class of neurotics is especially high in percentage of color blindness. The color-blind are not necessarily neurotic, however; they have a predisposition to neurotic disorder, but, if the primary causes are not operative, the maladjustment is not developed.

We have used the terms *psychological causes* and *mental*

causes interchangeably, since the adjectives 'mental' and 'psychological' are synonyms. The nature of these causes, by whichever name they are called, requires some explanation. Psychological causes include all factors that influence the perceptions, feelings, and thoughts of the person, excepting factors that are organic. Not only habits developed by the person himself are psychological causes; but the features of the social and physical environment that determine thinking and feeling are included. The social environment is especially influential, as we have several times implied. Included among the social factors that are causes of maladjustment are the influences of parents who dominate a child too much or who correct the child's speech. Environmental factors, social or physical, are causes only insofar as they influence feeling and thinking and so build up the habits that form the maladjustment, of which the habits called 'traits' are symptoms. Neurotic maladjustments are, as we have explained, habit systems that are more deeply seated than are the bad habits that are their symptoms.

4. *Some Specific Psychological Causes*

Many maladjustments have their beginnings in early childhood or even in infancy, although they may not develop to the point at which their symptoms appear until later. Some psychotherapists, indeed, think that all maladjustments have their foundations in early childhood or in infancy, but we are inclined to the opinion that persons who are well adjusted up to their teens may thereafter become maladjusted. The period from birth to puberty, however, is the great danger period. Some maladjustments, in fact, show their unmistakable symptoms in infancy or between the ages of two and four. Symptoms such as thumb-sucking and stammering cannot be concealed, although other habits may be in process of development whose symptoms will not be displayed until later.

Some of the causes that are inflicted on children may be enumerated and briefly explained at this point.

A. Excessive Direction and Guidance. Excessive guidance keeps the child from developing independence and initiative and in many cases lays the ground for a later neurosis.

B. Family Tensions. If the parents are antagonistic to each other, there are usually muscular tensions in both, tensions that are evident in their speech when they address one another. The term 'tension,' however, is often extended to include in a metaphorical sense disharmonies in opinions and attitudes, aside from the literal tensions. These domestic tensions upset the children, even if they are unaware of the actual antagonism between their father and mother. Some persons in their late teens or early twenties have become able to interpret the situations which afflicted them earlier, but which at the time they did not understand. Family tensions are often predisposing causes of maladjustment and perhaps may be precipitating causes, but whether or not they can be primary causes is uncertain.

C. Lack of Social Stimulation and Lack of Social Activity. The results of neglect of infants and young children will be discussed later.

D. Defective Discipline. Discipline may be excessively strict or excessively lax, or it may be wrongly applied, by methods that defeat the parents' intentions. Discipline that is overly strict, or too lax, or both may be detrimental. Letting a child do as it pleases until you lose your temper and beat the brat is not sound discipline.

E. Overprotection. Overprotection from danger might be said to be a form of overguidance, but guidance may be excessive even when it is sound in principle. Overprotection tends to promote the development of phobias; it certainly is a fertile source of frustrations, which we shall discuss shortly.

F. Conflicts between Traits That in Themselves Are Normal. Love for parents and appreciation of them are normal in children. The desire to be independent is normal. Parents often try to keep children dependent on them and under their dominance; to this end a parent often plays upon the filial affection of a child, and thus produces a conflict that at least can be a secondary cause of maladjustment.

G. Other Conflicts. Conflicts between principles inculcated by parents and principles adopted from groups of playmates often occur. The maladjustments resulting from such conflicts usually display symptoms such as recklessness and delinquency.

H. Excessive Sacrifice by Parents and Family for a Child. This is a particularly vicious form of pampering. Sacrifice is commendable if it is not irrational. When it is excessive, the child has built up for him an egoistic evaluation of himself, which is sometimes the foundation for a neurosis. Giving up, for the sake of a child, the privileges of the parents and those of other members of the family requires careful consideration of the degree of injustice involved and the possible benefits to be expected. No rules can be formulated for application to all cases.

I. Frustration. Frustration is prevention from satisfying a desire. In child life, frustration is a frequent cause of maladjustment. Any child can understand that not all desires can be satisfied; but the desires that are especially vital to the child are those whose frustrations are most dangerous. Among these vital desires are desires to engage in the activities that are permitted to his group of playmates. Some of these activities may be dangerous; but if they are forbidden, substitutes must be provided, and the substitute activities must appear to be reasonable substitutes, reasonable not merely to parents, but to the child himself.

Frustration of a desire on the simple ground that satis-

fying the desire entails activities that are dangerous involves not only the danger of making a coward of the child but the danger from the frustration itself. The essential factor of evaluating risks against possible benefits needs to be explained to the child. He needs to be encouraged to take reasonable risks and must learn also to evaluate risks.

The child's normal desire for social relations—for chums and group association—often raises a difficult problem. No responsible parent, of course, can permit a child to become a member of a group of young gangsters, but some parents avoid the mud by going into the mire—censoring the associates of their children by criteria of economic level or social caste. One of the benefits conferred by public schools is that of association with other children of various types; from such association the child who is skillfully guided can decide which type he will have for pals and with which types he will associate in less intimate ways.

The frustration of desires for activities that are flatly forbidden by parents, or that are precluded by economic conditions that the child understands, often leads to maladjustments, of which the symptoms may be apathy or incorrigibility. If the obstacles are economic, the child should begin to learn that which every adult has to know, namely, that if one has a beer income and a champagne taste, he needs to change his taste.

Some of these causes and symptoms that are of consequence in early childhood may be important for persons who have passed the adolescent period. Conflicting traits we have described as the characteristic of the concealed egotist or 'introvert.' Worry and improper attention to ideals and plans we have discussed in detail, along with introspection and other symptoms of maladjustment, which may also be causes of disorder. Frustration of the normal desire for social relations we have referred to several times. Family tensions have their counterpart in group tensions.

There is, however, one situation that persons bring on themselves, usually at an age between sixteen and twenty.

Young persons often make the mistake of trying to change the ways of life of their parents. Such changes can be brought about, but only by subtle procedures in which the youths usually are not expert. Criticisms and bossy regulation merely create antagonisms that react on the youths themselves to produce neuroses.

Parents whose habits of life were acquired in the 'old country' particularly resent attempts of youngsters, who have acquired modern notions in their university courses, to change their habits, and such parents protect themselves by asserting the opinion that a university course is foolishness anyhow. I recall the case of a girl whose father liked to sit in the evening at home with his coat and shoes off. The daughter tried to make him change his ways, but succeeded only in making him antagonistic.

The only method by which one can change his parents is that of being sympathetic, helpful, and cooperative. Most parents will respond to that treatment and, for those who do not respond, nothing can be done. You can justify your education only by proving that you are really a fine person from whom your parents may be willing to learn. Attempts to rule, order, or dominate your parents will merely rebound to your own harm. While it is true that the education of no person is complete until his children have finished his upbringing, it is also true that many children are not smart enough to do the job.

NEGATIVE PRACTICE AND ITS APPLICATIONS

1. *The Technique of Negative Practice*

It is impossible to describe or explain in detail the various systems of psychotherapy, and such presentations are unnecessary for our purpose. We shall explain one method or technique that we have found highly useful in readjusting patients, a technique that may be combined with other therapeutic measures, and which has direct bearing on our presentation of other topics. This technique is called *negative practice*. For seriously maladjusted patients, the technique can be applied only under the constant direction of a psychologist, but for the remedying of simple abnormal traits the patient himself may make the applications if he understands the method and its essential requirements. This technique was explained in my earlier book, *Habits*, but the explanation was not complete and has been misunderstood by psychologists who have thought they were applying the technique while ignoring the conditions stressed in the text as essential.

Negative practice can be defined initially as the practice of a response for the purpose of breaking the habit of making the response. This definition is implied in *Habits*, but the specific instructions given for the application of the technique should make it clear that the definition is valid only for the overt behavior involved in the response, not for the total response as an integrated process. A response that

eventuates in behavior includes affective factors and usually involves thought factors. The principle emphasized in *Habits*, namely, *the response in learning is not the response learned*, is valid for negative practice also, for which it might be reformulated as, *the response in negative practice is not the response unlearned*. In positive practice—practice for the purpose of learning a response—the erroneous responses are means of learning the response that is the goal of the learning, and the feeling and thought processes involved in the learning responses are expected to be absent from the response when learned. A similar situation is involved in negative practice also; included in the responses to be unlearned are affective and ideational factors, which are deliberately installed to promote the unlearning, factors that are not present in the habitual responses that it is the purpose to unlearn. This is necessary whether the habits do or do not involve behavior, as will be made clear when we consider the application of negative practice to specific habits.

The differences between thoughts and feelings experienced when learning to make a response and those experienced when the response is eventually learned may be revealed by a little consideration. In this positive practice, there is a goal contemplated, namely, the acquisition of a specific response or of a definite response pattern. The erroneous responses that are first made produce a feeling of dissatisfaction, and the occasional correct responses produce a feeling of satisfaction. After the response has been learned, it is made with less or no thought, and the feelings in the response are different from those involved in the learning.

In negative practice, these differences are even more obvious. An objective is necessary, the objective of eliminating the habit. The patient must understand why he engages in the practice and must understand what the negative practice can accomplish for him. Further, he must

desire to reach the objective, to eliminate the habit. The objective must be thought about and its achievement desired before the negative practice is begun; and the thought should be recalled from time to time during the practice. In this case, mixing the thought of the objective with the work to achieve it is a help, because the purpose is to break a habit, not to form one.

Secondly, the distaste for his performances that has been a feature of his habit is replaced by feelings of satisfaction. He approaches the practice of his habitual responses without reluctance and as a process that is desirable. Instead of trying to avoid the responses, he welcomes them. These feelings, of course, are not involved in his responses after the habit is broken.

Thirdly, effort to make the responses involved in the habit is encouraged and prescribed. Although effort is not useful in forming a habit, it has its proper place in the elimination of habitual responses. The patient is instructed, on the other hand, to avoid effort to refrain from the habitual responses and effort to substitute other responses for them. It is repeatedly impressed on the patient that effort is to be confined to the practice periods, in which it is to be applied to the 'wrong' responses, and that, between these practice periods, the recurrence of the bad habit is of no consequence.

Negative practice is not a theriac (cure-all). The range of disorders to which it can be applied is not yet completely determined. Nor can negative practice replace certain other procedures, which, however, may be combined with it. Organic diseases require attention, and the social life of the patient may also need reorganization. The causes of the disorder must be determined and, if still operative, should be eliminated if possible.

Negative practice for the elimination of a trait is based on the assumption that undesirable traits, like desirable traits, are habits, the results of learning processes, which

can be unlearned by appropriate procedures, in which the normal learning process is reversed and into which factors that are destructive to positive learning are introduced.

The general principle of negative practice is that of making an effort to do the things that one has been making an effort not to do, instead of making an effort to avoid doing the things one has been doing. These efforts are to be restricted to particular periods and combined with thought processes that are prescribed for the purpose. The principle involved might be formulated as bringing under voluntary control responses that have been involuntary. Insofar as a habitual response is made voluntary, the involuntary production of the response is eliminated. This is merely a description of the results of negative practice and is not an explanation.

2. Some Simple Applications of Negative Practice

For illustration of the generalizations we have presented, some applications of the technique of negative practice may be described in detail.

A. Tensions. Muscular tenseness is detrimental to most motor performances. In driving a car, you may be tense; you may grip the steering wheel violently and may have strong tensions also in your leg and trunk muscles. This is tiring as well as unsafe. You may relax voluntarily, but the relaxation does not persist. When your attention is distracted, you find yourself as tense as before. If you try the opposite plan you will do better. When you are tense, and traffic is not a serious problem, grip the wheel as hard as you can and make your arm, leg, and trunk muscles as tense as possible. Think of the reason why you do this: that making yourself as tense as possible, voluntarily, will help you to be relaxed when not making the voluntary effort. If you repeat this practice frequently it will 'do the work' unless you are already a serious neurotic case.

B. Erroneous Behavior. If you are learning to drive and have the habit of clashing your gears, find out, or have some one explain to you, just what it is that you do wrongly in shifting gears and then practice doing that very thing, reminding yourself that you are doing it in order to break the habit of doing it.

C. Difficulty of Recall. If you have difficulty in recalling a name, a date, or some other item, an effort to recall increases the difficulty. Cease the effort, and the item may be recalled shortly thereafter. If not, make an effort to forget it by turning your attention to something else. Effort to recall decreases the probability of recall, but effort to forget has the effect of making later recall more probable.

D. Stage Fright. If you know what you do and how you feel when you are afflicted with stage fright—that you feel scared, that you tremble, or what not—try to reproduce the situation voluntarily. Stage your reproduction with members of your family, or with friends, as an audience. Your reproduction will not be accurate, but we have found that for this situation accurate reproduction of the responses is not essential. One performance of negative practice has sometimes been efficacious for persons who previously have not been able to give adequate violin or piano recitals, but one success is seldom a permanent cure.

E. Obsessive Thoughts. Making an effort to avoid the thought that obsesses you is ineffective. If you concentrate voluntarily on the obsession and keep it going round and round as long as you can stand it, making an effort to keep the thought in mind, you will find that, when you stop the effort, you will be less afflicted. Here, again, thinking why you are making the effort is essential, and one practice period will not end a well-established obsession.

F. Hypochondria. Persons who are obsessed with the thought of an organic disease that medical examination finds to be nonexistent may relieve themselves of the obsession

by devoting a daily period to attention to the imaginary symptoms and moaning about them. This negative practice must be carried on deliberately, with thought of the reasons for doing it, and on plans made in advance.

G. Social Difficulties. Persons who feel ill at ease in social groups can help themselves by making a deliberate effort to feel as uneasy as possible. Tension, in the metaphorical sense of the term, can be remedied in the same way as that in which literal tensions are remedied. Persons who think that they are unable to keep up their parts in group conversations should not make an effort to talk, but should make an effort to refrain from talking, until they are bursting with something to say. This usually takes about twenty minutes, and then talking is much easier.

H. Worry. The habitual worrier can always find something to worry about. Sometimes there is a particular topic of worry, but one who has formed the habit finds new topics, which often are substitutes for the topic that he wishes to avoid. The effort to stop worrying, as we have said, is unavailing, because it produces worrying about worrying. Negative practice may help. If you are a chronic worrier, pick out some topic about which you are prone to worry and deliberately worry about it as hard as you can. You should, of course, reflect from time to time that you are worrying deliberately in order that you may break the habit of worrying.

If there is an unsolved problem that you have been avoiding by worrying about other things, do your negative practice on that problem. Think of the problem that you have been avoiding and make an effort to worry about it; if you have been wont to moan or lament aloud about it, moan and lament in your negative practice. To make your practice as deliberate and voluntary as possible, select a time and place that will ensure that you will be free from interruption for at least ten minutes and at the appropriate time

sit down, organize your topic, and start worrying. Your attention will wander, so an effort to attend to the topic of worry is required. After five or ten minutes of worrying, depending on how long you can maintain the effort, you will be relieved.

I. Tics. A tic may be loosely described as a habitual, nonvoluntary movement, but, although it is described as merely a motor pattern, it is really a part of a more comprehensive response. The name 'tic,' however, has become attached to the muscle pattern itself rather than to the total response.

Almost any action pattern, of small groups of muscles or of large muscle groups, may become a tic. Among the common tics are blinking the eyes; wrinkling the brows; clearing the throat; tilting, twisting, or jerking the head; shrugging the shoulders; tapping or drumming with the fingers; tapping with the foot; and biting the fingernails. Action patterns of the abdominal muscles also occur as tics but are less troublesome because they are not so readily observable by other persons.

Tics may even be involuntary actions, occurring in spite of the desire not to make them, but this is not the usual situation. At the moment when the tic occurs it ordinarily is not anticipated, but appears as a 'bolt from the blue.' Tics are not unconscious, in the strict meaning of the term, but the person usually does not attend to them and so they are easily forgotten.

Involuntary movements similar to tics may occur in normal persons, but these movements are not tics unless they are habitual. Tics differ from other abnormal responses in that they are always symptoms of neurotic maladjustment. It is a relatively simple procedure to abolish a tic by negative practice, but, when one tic is abolished, the patient usually develops another tic. In some cases, as in those of

stammerers, it is useful to abolish facial tics, regardless of the development of other and less conspicuous tics.

The origin of a tic, like the sources of symptom contents in general, can usually be discovered if one takes the time to do it, but this is of no great importance. The important thing is to discover *why* the patient tics. Obviously, any muscle pattern that becomes a tic has started in some normal response to stimulation. Blinking, or wrinkling the brow, usually starts from a normal response to excessive stimulation of the eyes by light or stimulation of eyes that are hypersensitive. Some other tics seem to have originated as thought responses.

Tics are products of the inability of the patient to handle his problems; he tics as a substitute for attending to the problems or worries he avoids. The habit is an exemplification of the fact that thought processes produce their effects when one ceases thinking of the topics that are distressing.

The patient who displays tics has usually not attended to them well enough to be able to reproduce the muscle pattern voluntarily. If a tic is to be eliminated by negative practice, the psychologist must study the tic and correct the first voluntary imitations, guiding the patient to a reproduction as accurate as possible. The explanation of the purpose of the practice and the assurance ~~that~~ the patient really desires to rid himself of the tic follow the general lines already laid down.

After the patient, properly coached, has become able to reproduce voluntarily the muscle pattern of his tic, he is instructed to perform the act immediately when an agreed signal is given. The signal may be the verbal command, "Tic." The signal is given at irregular intervals, with no warning before the signal, the average interval being less than that between the patient's habitual tics, as estimated previously. A total period of about half an hour is suitable for the practice, and it is not difficult to carry the pa-

tient through the period without a single tic. (The voluntary responses, of course, are not really tics.)

3. *Stammering*

We select stammering for detailed discussion because it is impossible to explain in detail the therapeutic procedures for a wide range of complex maladjustments. Stammering is illustrative, since the causal pattern is known and the outstanding symptom is familiar to most persons. Stammering almost always begins in early childhood, before the age of seven; the foundations having been laid, a neurotic condition develops and usually becomes worse with increasing age.

The primary cause of the maladjustment of which stammering is the most conspicuous symptom is usually overguidance (overdirection) of the child, and what we call for convenience 'frustrations' are usually involved in the primary cause. Family tensions (that is, unpleasant relations between members of the family) contribute, but we have not found any stammerers whose maladjusted condition could be ascribed to family tensions alone.

Predisposing causes are of various sorts. A prolonged disease in early childhood, or a succession of such diseases, weakens the child and makes him vulnerable. Inadequate diet, especially a meatless diet, is the commonest predisposing cause. The determining cause, which selects stammering, is calling the child's attention to his speech. A parent given to overguiding her child cannot refrain from correcting his speech errors. In some cases, the child's attention is called to his speech in the attempt to repress certain bad words, the utterance of which has caused him to be punished. These cases are relatively few; the major determining cause is correction of the slips that every child makes when learning speech rapidly. Mispronouncing words, transposing syllables, and stumbling over words are com-

mon occurrences when the child is learning new words and phrases. If no attention is paid to these errors, they are eliminated; but if the child is corrected there is danger of making a stammerer of him. Whether or not correcting a child's speech can be a primary cause of stammering, if predisposing causes are lacking, we cannot say with certainty. If a primary cause of neurotic maladjustment is at work, however, correcting his speech is certain to determine him to stammer.

If a primary cause of neurosis is at work on the child, but his speech is not corrected, the neurosis will display symptoms of a different sort. Some children become listless and devoid of initiative; others become unruly and incorrigible. Stammering always indicates speech correction in childhood, either by stopping the child and telling him to "say it over and say it right," or telling him to "speak slowly," or by punishing him for uttering a bad word he has picked up from his playmates.

A stammering child below the age of seven must in no case be given direct speech treatment; such speech correction confirms the speech trouble, and may make its later remedy difficult. A stammerer whose speech has been worked on by 'speech experts' from childhood on is usually incurable. If the child is younger than seven, it is the family that needs treatment. If the parents and brothers and sisters cooperate and pay no attention to the child's speech, and if the child is put on a full meat diet, the stammering usually ceases. At such tender ages, removing the determining cause may suffice. The child may still be neurotic, however, and the treatment he receives from his parents needs attention.

After puberty, the situation is different. By this time the individual's attention has been centered on his stammering so thoroughly that direct work on his speech can do no further damage. For the ages from seven to twelve, the

procedure to be followed depends on the particular case, but direct work on speech is often in order at the age of nine, although speech correction in classes in school seems merely to fix the habit of stammering and make its remedy more difficult. If the stammerer comes into competent hands by the age of twelve, the remedy is rapid and should leave no evidence that the person was ever a stammerer.

For cases in adult life, or near the adult stage, careful diagnosis is requisite. Sustaining causes must be sought for; the stammering itself is often a sustaining cause, because of the social difficulties it entails. The neurotic condition may be milder in adult life than in earlier periods, but stammering is still a symptom of neurosis. Usually, in the adult case, the other symptoms of neurosis are discoverable, although they may not appear in the young child.

That there are many more stammering males than females is well known. The relative frequencies have been variously estimated, but in our experience there have been about twenty stammering boys and youths and men to one stammering girl or woman. The causes of this sex difference are as yet unknown.

The term *stammering* covers a variety of speech defects, but excludes lisping and speech disorders due to anatomical causes, such as cleft palate. *Stuttering* is the term commonly applied to the type of stammering in which the person repeats the initial syllables of words or the initial consonant or vowel sounds. The old story of the man named Sisson who became intoxicated and was haled before a police judge is a description of a stutterer. "What's your name?" asked the judge. "S-s-s-s-s-s," said the culprit. "Stop making that noise and tell me your name," said the judge. "S-s-s-s-s," said the victim. "Officer," said the judge, "what is this fellow charged with?" "Oi think, yer Honor, he's charged with soda water."

Some stammerers who do not stutter stick on words and

mutilate syllables. Others hesitate briefly before certain words and utter them shortly with obvious effort. In some cases, the patient at his worst may be unable to utter any words, but makes sounds of the 'woo-woo' sort. In other cases there is a sudden blocking of speech for a period. The patient may speak well for a period, and then stop suddenly, as if his speech muscles were paralyzed. It is possible that some of these speech-block patients are disordered in ways that are not properly neurotic, but most of them seem to be fundamentally of the same type as other stammerers.

In almost all stammering cases, except some of the speech blocked, there are muscular activities of the tic type, following patterns that differ from patient to patient, but which are rather uniform for a given person. These tics are contortions of the facial muscles or of the tongue. In many cases there are spastic contractions of the muscles of the arms, chest, and abdomen. Breathing usually is interfered with by spastic contractions of abdominal and chest muscles. These tics might be regarded as fillings for the intervals in which speech is impossible. The repetition of sounds by the stutterer might also be regarded as fillings; this would reduce all stammering to the class of speech blocking, but the simple reduction does not seem to be warranted.

Some patients who stammer in conversation or in recitation can read aloud without difficulty. Some who cannot read aloud can sing. Some cannot even sing, and we have found a few who stammer in writing. As in all neurotic cases, the circumstances determine the appearance of the symptoms. Some stammerers stammer at home but not when away from home, while others reverse the relation. Some boys stammer when talking to girls, but not when talking to other boys, while with some the situations are reversed. Some fellows have periods of several weeks in

which they do not stammer, with other periods in which they stammer badly. We have found no one who stammers all the time and in all circumstances.

These considerations explain why stammering cannot be remedied by the simple prescription often given, "Learn to speak correctly." The stammerer can speak correctly and does speak correctly at certain times or in certain circumstances. He really has two speech habits; on this account courses in speech training are of no avail. The old and stupid advice for breaking a bad habit, "Just form the correct habit," is flagrantly inapplicable to stammerers. When the person has the habit of correct speech at all times and in all circumstances, he is no longer a stammerer; the difficulty, of course, is in breaking the stammering habit.

The basic characteristic of a stammerer is attention to his speech while speaking. He makes an effort to speak correctly and worries about his speech. We have found it well to explain to patients that a stammerer is not merely one who stammers, since every person stammers at times; but that a stammerer is one who stammers and worries about it and constantly tries to control his speech. The more effort he makes, of course, the worse he stammers; the damaging effects of effort appear more clearly in the stammering cases than in other cases. If the stammerer could forget his habit, the habit would cease. Under great excitement, or when mildly intoxicated, most stammerers speak without difficulty. Painful stimulation may distract a patient from his stammering. A patient who is unable to tell me his name can talk if I twist his arm painfully. A stammerer who cannot read aloud by himself can read in unison with another person; he has to listen to the other reader in order to keep in unison and so attends less to his own speech. In other words, a distraction makes the person forget that he is a stammerer, and he therefore ceases to make effort.

No one can speak well while watching his speech or while

thinking what he should say and how he should say it. The best prescription for fluent speech is given in an old rhyme by Gelett Burgess.

I love its gentle murmur,
I love its placid flow;
I love to wind my mouth up,
And listen to it go.

In other words, in normal speech the speaking and the thinking are the same process. If mistakes are made they should be criticized afterward, not during the speaking. It may be helpful to a child to give him suggestions for better enunciation, but such suggestions should be made at times when the child has not been speaking.

In a confirmed case, the stammering habit must be broken, and the methods that have been recommended are innumerable. Among these are breathing exercises; promotion of visual imagery; beating out the words by hand movements; etc. One man has cured boys of the stammering by teaching them to play the piano; others, we suspect, might be cured by being permitted to stop piano lessons. A report that we cannot verify, but which seems plausible, is that boys have been cured by compelling them to go around on their hands and knees, more or less dog-fashion. Anything that distracts the patient's attention from his speech should work, for some cases at least, temporarily.

Boys who are sent away from home to schools for stammerers seem to be cured in the majority of cases, but the cure is temporary. When the boys return to their homes they relapse. The fundamental things that are necessary to protect them from the conditions that cause the stammering have obviously not been done. Persons who have been cured several times present more difficult cases for remedy than those who have not been given treatment.

Negative practice has cured many patients without sub-

sequent relapse, but we have recently had better results by combining the negative practice with other methods, which are not successful when applied without negative practice. Negative practice is subject to requirements that are more strict for stammerers than for cases in which certain other bad habits are to be broken, but the requirements give a valid index of the best application for other habits. The stammering practiced by stammerers must be as nearly as possible the customary stammering of the patient. It is not helpful for one stammerer to practice the stammering of another one. Two students some years ago attempted to apply the negative practice method and wondered why they did not succeed. When my assistant interviewed the patient, the patient said, "You know, I can stammer in two ways now." My assistant asked, "What two ways?" The patient replied, "The way I have always stammered and the new way they have taught me." A person at the University of Iowa attempted to apply the method to a group of stammerers (which is impossible) by teaching the group a system of stammering that was contrived artificially; that is, he thought he was applying the negative practice method, but he really was not. The most difficult part of the application is teaching the patient to stammer voluntarily in the way in which he stammers habitually.

We must constantly remind the patient why he is to stammer voluntarily and what the practice will do for him. The desire to rid himself of the habit of stammering is essential, but anyone who has stammered for several years has that desire, and our only need is to tie the desire to the technique employed.

The principle that the response in learning is not the response learned is well illustrated by the stammering cases. The patient learns to stammer with effort, with the thought that this practice will help him to speak correctly. The response learned is that of correct speech, free from the

thoughts involved in the learning and free of effort as well as the desire to break the habit.

Our present combination of negative practice with other methods is as follows: The patient practices reading in unison with another person. He is instructed to keep up with the leader at all costs, skipping any word which he even thinks may give him trouble. At first he skips a word now and then, but after a little practice he skips none. Next, he is started in unison, the monitor dropping out as soon as the patient is well started. For this step, he is instructed to skip any word or words that he thinks may give him trouble, the point being, it is explained to him, to avoid all effort. This is not easy for the patient; he will struggle doggedly with difficult words and will even go back to try them again. Eventually he gives up the effort and skips with nonchalance.

This procedure gives the psychologist a chance to observe the patient's stammering and enables him to coach the patient efficiently in the next part of the game. This third step introduces negative practice. The patient is instructed to read alone, not omitting any word. The psychologist starts reading in unison with the patient, and then drops out. When the patient sticks on a word he is required to repeat the same 'wrong' sound as nearly as he can, and with the same facial tics and the same tongue action. Before commencing this stage of the procedure, the patient, of course, is given detailed instructions. When he sticks on a word, the psychologist commands "Repeat," followed, after each effort, by "Again." After a number of repetitions, the command "Now" is given, the signal to the patient that he is to say the word 'right.'

Immediately after stammering the patient can repeat his error more easily than he would be able to do later, but he still needs coaching and frequent reminding that exact repetition is essential. Some patients, after two or three repeti-

tions, can say the word correctly and go on from there; another may need five or six; for some it is necessary to go back a word or two and come up to the one that gave trouble. For instance, in the phrase "it is decidedly," if he sticks on "decidedly," then, after negative practice on that word, he starts to say it 'right' with "it is."

After several work periods in which the three techniques described have been employed, a fourth method is introduced. The patient is required to beat time with his free arm while reading or speaking. At first, there is a beat for each word, as: this—is—the—way—to—do—it; but shortly the sentences are beaten in phrases that form coherent units, as this—is the way—to do it. The patient requires coaching, for he tends to forget the beating, whereupon he stammers. This beating method has been used by some schools for stammerers, but it is not satisfactory by itself. The patients relapse because the beating has been made a permanent feature of the speaking, and, since it is conspicuous, the patient usually abandons it. I recall a boy who had been taught the beating method and on returning from the school was asked by a friend, "Well, John, how goes it? Can you talk all right now?" To which the boy replied, accelerating his words and beats, "Of—course—I—can—talk—this—way—but—dammit—I—don't—want—to—talk—this—way." Beating is useful as an accessory technique in two ways. *First*, since it is a practice factor that is not to be a feature of correct speaking, it conforms to the principle that the response in practice is not the response learned. It seems to be an effective means of distracting the patient's attention from his speech. *Second*, in some cases it is useful to train the patient, after the beating has been mechanized, to reduce it to a mere squeezing of the hand, which the patient can do with his hand in his coat pocket. Having this technique in reserve for an emergency, the patient has more confidence and the emergency is less apt to arise.

Negative practice is given in conversation during the work periods, and eventually reading and conversation are carried on in a room large enough to require the patient to speak loudly, the patient at one end of the room and several auditors at the far end.

The application of negative practice to stammerers illustrates applications to a wide range of cases. The elimination of a symptom does not necessarily dispose of the fundamental condition of which it is a symptom. Causes arising in homes and in social conditions must be investigated and eliminated if possible. The parents of a stammering child must have their 'ears pinned back' and be made to 'lay off' the child. Diets often need correction. In cases of older persons, the causal factors have long ceased operating, but the stammering persists and acts, as we have already explained, as a sustaining cause. Any symptom that is a source of embarrassment in social or business life is a source of worry, and the elimination of such a symptom is a benefit, giving the person a better chance to recover from his fundamental maladjustment.

Along with the techniques we have described, improvement in the stammerer's social life is usually needed. Social difficulties, which are characteristic of neurotics of all types, are especially acute for stammerers, since their stammering impels them to avoid social contacts in which they have difficulty, and the social avoidance increases the stammering as a sustaining cause. It is usually difficult to bring the stammerer to a point of normal participation in social affairs, but even a small improvement is a help.

During the course of treatment, certain facts are impressed upon the patient, facts that we have discussed, but which need to be emphasized and explained in detail.

A. He is made to see that attention to his speech processes while speaking is detrimental. The Gelett Burgess rhyme is told to him, and the theme is elaborated.

B. He is urged to take note of the speech of other persons and the extent to which they stammer. This helps him to understand that persons who stammer are not necessarily classed as stammerers. It helps also to disabuse him of his neurotic view of himself as an exceptional case.

C. Although a complete explanation of the principles on which negative practice is founded is not necessary, it is useful to explain (in substance) that insofar as he can bring a response under voluntary control he will be freed from it as a nonvoluntary response. For the stammerer, a convenient formulation is, "If you can stammer when you want to, you won't have to stammer when you don't want to."

D. The need of avoiding effort to speak correctly in the daily life between work periods is stressed. It is explained that stammering at other times is of no importance and that effort to avoid stammering is sure to make the stammering worse. A nonchalant attitude is advised, and the patient is told to let other persons worry about his stammering if it annoys them, not to worry about it himself.

E. It is impressed on him that while, in his daily life, his symptom is repulsive to him, in the practice periods he is to accept it as a fine thing, because it is useful to him. The distinction between the practice periods and other parts of his life is emphasized in various ways. Insofar as the patient grasps this distinction and adapts himself to it, his worry about his stammering decreases, and the decrease becomes greater as he begins to note improvement in his speech.

SEX AND ITS FUNCTIONS IN HUMAN LIFE

1. *Terms that Need to Be Distinguished*

The word *sex* is used currently in popular writings and discussions in several different meanings, and the uncritical use of the term produces much confusion, leading to logical fallacies in reasoning. Three of these meanings are important and must be distinguished from one another; these meanings are more clearly indicated by the adjectives *sexual*, *genital*, and *erotic*. We shall discuss the concepts indicated by these three terms in the order presented.

A. Sexual Characteristics and Conditions. Sexual refers to those characteristics of animals and of some plants that divide them into the two 'sexes,' the male and the female. Among the plants that are so divided, the date palm is conspicuous. One tree bears the blossoms that provide the pollen for the fertilization of blossoms of other trees, which bear the dates. Some trees are not divided into two sexes, but bear blossoms of two sorts, one producing the pollen and the other bearing the fruits. The walnut is in this class. The squash is a plant of the same type. Our concern, however, is with the animal sexes and, in particular, with the sexes of human beings.

Although the species that we call the *higher animals* are divided between the two sexes, there are some of the lower animals, such as snails, which combine the functions of both sexes in the same individual. These lower animals are called

hermaphrodites. Partial hermaphrodites are occasionally produced by vertebrate animals, but the sex traits, both anatomical and functional, are never completely developed for the two sexes in the same vertebrate animal.

The basis for the differentiation of animals into the two sexes is provided by the *gonads*, or primary sex glands, the *ovaries* in the female and the *testes* (testicles) in the male. The ovaries produce the *ova*, or eggs, and the testes produce the *spermatozoa*, or sperm cells, which correspond to the pollen of plants. For reproduction, fertilization of an ovum by a spermatozoon is required, a process that in most animal species involves the deposit of the semen of the male inside the female. Hence, certain accessory structures are required, the *phallus* of the male and the *vagina* of the female. In *coitus*, or sexual intercourse, the male semen is deposited in the female vagina, and the spermatozoa then make their way, by their own activity, into the *uterus* and often farther up to the ovary. The uterus (or womb) is the female organ in which the young are nourished in the prenatal period (period of *gestation*); we are not considering here, of course, those animals which lay eggs, as they have no gestation period. The phallus and testes constitute the *external genitalia* of the male, while the vagina, uterus, and ovaries, with the *Fallopian tubes*, constitute the *internal genitalia* of the female. The Fallopian tubes are the structures through which the ovum descends from the ovary to the uterus. There are internal as well as external genital organs in the male, but the external genitalia of the female are, strictly speaking, restricted to the *labia majora* (major lips), which protect the internal genital organs. The genitalia, or genital organs, are often called the *primary characters of sex*.

The ovaries and the testes not only produce the egg cells and the sperm cells, but function also as endocrine glands, which secrete hormones into the blood stream. These hor-

hones of the sex glands determine the development of the accessory sex organs and also produce certain secondary sex characters, such as the beard and the deeper voice of the male human, the mane of the male lion, and in the human female the development of the mammary glands and the characteristically thicker layer of subcutaneous fat. In human beings and in most lower animals, there is a differential development of the skeletal form in the two sexes, which also seems to depend on the sex hormones.

In the rearing of domestic animals it is customary to emasculate males that are not needed for breeding purposes, in order to prevent the development of undesirable secondary sex characters, by removal of the testes, a process known as *castration*. A similar operation performed on female animals, by removal of the ovaries, is called *spaying* (or *spaying*). In earlier periods of culture, emasculation of human males was practiced, the emasculated persons being called *eunuchs*. Removal of ovaries from women is sometimes performed, for medical reasons, and this operation is known as *ovariectomy* or *oophorectomy*.

Removal of the sex glands does not completely unsex an animal, since the body cells of the male and female differ in respect to the sex chromosomes in the cell nuclei. Moreover, it is now admitted that in both sexes, apart from the gonads, there is tissue that secretes the sex hormones of the opposite sex. For these reasons, a person in whom the gonads have atrophied, or from whom they have been removed, may develop secondary characteristics appropriate to the other sex.

The effect of castration or spaying depends to a large extent on the age of the animal at the time of operation. Secondary sex characters that have been well developed do not regress completely, and the urge to sexual intercourse persists in male animals castrated after becoming adult. Such animals may even perform coitus, although the per-

formance, of course, is sterile in results. For these reasons the operation performed on captives who were to be made eunuchs was not simple castration, but the removal of the entire external genitalia.

During the Middle Ages, boys were castrated to preserve their boyish voices for choral singing, but the operation was simple castration, as is indicated by the name *castratti* applied to these victims.

In normal coitus, as we have said, the semen of the male is deposited in the vagina of the female, and the spermatozoa proceed from there into the uterus and sometimes ascend from the uterus through the Fallopian tubes. The deposit of the semen is accomplished by the male *orgasm* (sexual orgasm), which is a rhythmic contraction of the urethra, which ejects the semen through the phallus. Cases have been reported in which the semen was deposited on the external genitalia of the female and conception occurred. Presumably, spermatozoa entered the vagina and proceeded from thence to the uterus; such travel is theoretically possible, but most experts are skeptical about these reports. The orgasm is not always essential for reproduction. Leakage of semen may occur prior to the orgasm, as some persons have found to their sorrow, and, if after an external orgasm the male organ is inserted in the vagina, leakage of semen remaining in the urethra is almost certain to occur.

In the female, the sexual orgasm is normally a rhythmic contraction of the muscular coats of the vagina, with which may occur a rhythmic contraction of the uterus. This process is assumed to facilitate the entrance of the semen into the uterus, but the female orgasm is not essential to conception. There are, apparently, a number of types of female orgasm, ranging from the complete type, in which vagina and uterus both participate, down to the condition called *frigidity*, in which there may be no orgasm at all.

Preceding coitus, or during coitus, the process of *turges-*

cence (also called *tumescence*) normally occurs in both sexes. As the names indicate, this is a swelling of tissues in the sex organs, called 'erectile tissues.' The swelling is produced by an increase in the quantity of blood in the tissues, the blood being prevented from draining out by the pressure of certain muscles on the veins through which the blood would otherwise escape.

Turgescence of the male organ is essential for coitus, since in its flaccid condition the organ cannot be made to enter the vagina. In the female, there is normally a certain degree of turgescence preceding coitus, but it may follow the reception of the male organ. The condition of a male who is unable to achieve turgescence is called *impotence*; that a similar condition occurs in some frigid women is rather obvious.

The sexual orgasm is sometimes called the *climax*, and it is indeed the climax, not only of the physiological process, but also of the emotional episode. After the climax, the male is usually relaxed, for a time at least. His desire for coitus may be absent for a time, but often the desire is as strong as before, although performance is impossible until turgescence recurs, a recurrence that requires a rest period. The tendency of the man who has had coitus with his wife is to go to sleep, although during the honeymoon, before coitus has become somewhat routinized, this tendency may not appear.

With a woman, the situation may be quite different. After a complete orgasm, a woman may be relaxed and prone to fall asleep. After a less complete orgasm, she may remain in an excited condition and may require repeated coitus to relax her. This condition, if it becomes habitual, may cause a neurotic condition to develop or may cause frigidity. One or the other of these results is probable, if further stimulation of the woman adequate to pro-

duce relaxation is not forthcoming and the woman is left 'hanging in the air.'

The orgasm is a muscular process, but the processes preceding it are in part vascular. Stimulation of the sensitive parts of the genitalia produce, reflexly, effects on the whole circulatory system. Sensory stimulation of the vagina and of the glans penis is usually necessary to produce the orgasm, but it may occur without sensory stimulation, as a result of thought processes alone. The orgasm also may occur in sleep in both sexes, although the causes are still matters of dispute. Usually, the orgasm during sleep is accompanied by an erotic dream—hence the vulgar term 'wet dream'—most often a dream that is rather silly; but it cannot be decided whether the dream is the cause of the orgasm, or vice versa. The most probable explanation is that turgescence occurs, as it normally does after a rest period, and the turgescence is the cause of the dream, and the emotional dream state intensifies the turgescence and precipitates the orgasm. This, however, is mere conjecture. The common explanation of turgescence of the male organ after a rest period as being due to pressure of urine in the bladder is easily shown to be invalid.

B. Genital Processes and Conditions. The second important meaning in which the term *sex* is commonly employed is most often in the adjectival form *sexual*. The activities and sensitivities of the genital organs are truly sexual, but since they include only a limited group of sexual processes and sensitivities, we prefer to denote them by the adjective *genital*. Genital processes are intermittent and might be called episodal. A person may live for a considerable period of time with no genital stimulation and no genital activity. Every person, however, is 'sexual' in the broad sense of the term, throughout life, for every person is either male or female. From the moment of conception, in which a sperm cell unites with an egg cell to produce an individual

who from that moment is either male or female, every person has sex. The whole life of any normal person can rightly be said to be 'sexual'; but this does not mean that genital processes are constantly involved. Tumescence, of course, is a genital process and therefore a sexual process. The orgasm is a sexual process and, in particular, a genital process. The production of spermatozoa in the testes and the production of ova in the ovaries are sexual processes that are also genital processes, but these productions are not consciously observed. So far as all conscious processes are concerned, the processes in the genital organs are best called genital, thus identifying them with a particular class of sexual processes. By applying the term 'genital,' the danger of confusing these processes with processes or conditions that are sexual in a different sense is avoided.

C. Erotic Processes and Conditions. The third important meaning of the term *sexual* is more adequately expressed by the term *erotic* or the synonymous term *amatory*. The wide range of processes and conditions that are properly called 'erotic' are of course 'sexual' in the broad meaning of the term 'sexual'; we can say that all that is erotic is sexual, but much that is sexual is not erotic.

Erotic processes include desires and feelings, and the adjective is applied to stimulations also. The desire for coitus is an erotic desire, but the desire for the society of persons of the opposite sex, even when there is no thought of coitus or of physical contact, may also be erotic. The attraction of a person of the other sex is erotic attraction if the attraction is of the sort which, under appropriate conditions, would lead to coitus.

Not all interest in, or attraction to, a person of the other sex is erotic. Association between man and woman may be on the same basis as association between man and man or between woman and woman. It is true that in heterosexual associations there are different attitudes from those involved

in association of persons of the same sex. Women expect certain privileges, and men accord the privileges that women expect. These attitudes, however, are based less on erotic than on reproductive factors. Condescension to women as 'weaker vessels' and special consideration given women by men without overt condescension are due to the acknowledged fact that women, because of the features of their reproductive life, are actually vulnerable to features of the environment that do not afflict men. However, a man who thinks that erotically woman is the weaker vessel is merely demonstrating a dense ignorance of woman.

Stimulation that arouses erotic desires, erotic feeling, or erotic thought may properly be called 'erotic stimulation'; the term *erogenic* also is applied to such stimulation. Erogenic stimuli may be tactual, visual, auditory, or olfactory. Erogenic stimulation of the visual and auditory senses obviously occurs. The sight of a loved one, or the hearing of her voice, is a common cause of erotic feeling and erotic thoughts. In the lower animals the sense of smell is an important avenue for erogenic stimulation, and olfaction is an erotic or erogenic sense for many men. That there is a functional connection between the erectile tissues in the genital organs and the erectile tissue of the nasal passages has been known from ancient times. In a state of erotic excitement the vascular lining of the nasal passages may swell, although such nasal turgescence does not always occur; in the state of high excitement preceding the orgasm the nasal turgescence may be so great that breathing is difficult. It has been suspected that victims of hay fever are persons whose erotic lives are somewhat disordered, although this may not be true in all cases.

As for erotic stimulation to the senses of touch and pressure, areas that are especially sensitive are called *erogenic areas*. The primary erogenic areas are certain parts of the external genitalia of the male and the clitoris and vagina of

the female. Secondary erogenic areas are found on the skin of the female and to a lesser extent on the male, areas that vary from person to person. Among these secondary erogenic areas are the nipples, the lips, the ears and the skin behind the ears, and the flat area on the small of the back, which obstetricians call the 'Michaelis quadrilateral.' Erogenic areas may be stimulated by touch and pressure and by tickling; moreover, stimulation that is really painful may have a powerful erogenic effect. Stimulation of any skin area may be erogenic under certain circumstances, and stimulation of receptors in the skeletal muscles by violent muscular activity may have a powerful erogenic result.

The psychoanalysts assume that in infancy the whole skin is erogenic and that the eventual secondary areas are produced by a restriction of the erogenic characteristic to the limited areas. The skin, according to this assumption, loses for most areas its original erotic excitability, which is retained on the genital organs and on the restricted secondary areas. The facts are directly opposed to this theory. The child derives pleasure from tactual stimulation before erotic processes are possible for him. The development of erotic sensitivity, even on the genital organs, normally begins in late childhood, although by persistent stimulation its development may begin earlier, a development that makes the child a pathological case. The secondary erogenic areas develop even later in life and on some individuals do not develop at all, except when acquired by associative learning. In any woman who has no erogenic areas except the primary areas of the genital organs, secondary erogenic areas can be developed by appropriate treatment, by the process the physiologists call 'conditioning.' This indicates that in other cases the secondary erogenic areas are really the results of associative learning.

Stimulation of the erotic sort may produce genital processes, including genital turgescence, but it often produces

erotic desire, erotic feeling, or erotic thought with no genital effects. We do not call any stimulation of any sense erotic stimulation unless it produces erotic processes of conscious sorts, and even so we do not assume that genital processes are always involved. Stimulation that might be erotic sometimes is not. Stimulation of the genitalia may, in some circumstances, produce disgust instead of erotic feeling, and in such cases it is not called 'erogenic.'

There are great differences between individuals in respect to erotic stimulations. Characteristic female odors are erogenic to some men and may even produce genital processes; but for other men there is nothing erotic about the odors. Skin areas that are erogenic on some women are not erogenic on other women.

Erotic processes, including erotic desires, feelings, and thoughts, may occur, as we have said, without any genital processes. This occurrence is illustrated by the condition of the male after the orgasm; the desire for coitus may be present, although genital processes are in abeyance. In daily life, a somewhat similar situation is common. Erotic feeling occurs without any genital processes. The necessity of avoiding the inclusion of genital processes and conditions with erotic processes and conditions under the confused term 'sexual' is here plainly indicated. Erotic processes may prepare the individual for coitus by arousing genital processes; but under conditions of polite society men and women do not go on to coitus whenever they are erotically stimulated. In an orderly life, erotic stimulation does not affect the genital organs except in circumstances in which progression to the climax is appropriate.

Some theorists have held that erotic affects, if not actually localized in the genital organs, at least are dependent on processes in the genitalia, but this theory is clearly invalid. While it is true that erotic processes may produce genital processes, the fact that erotic processes may occur

without genital effects excludes the genitalia as the primary seat of erotic affects. In this connection it is worthy of note that impotent men, men in whom turgescence of the male organ is impossible, are often highly erotic in their desires. Sometimes the erotic excitement of such a 'satyr' reaches such a height that he dies of heart failure. The popular notion that eroticism is dependent on the circulatory system, for which the heart is the representative term, undoubtedly is not far from the truth.

Excitement occurs in erotic activities, and pleasure also is produced. Unpleasant affects also occur in erotic conditions. Other affects are often involved; tension, for example. This does not imply that these affects are specifically erotic. The same affects occur in almost all features of human life. Whether or not erotic pleasure, erotic excitement, and erotic tension are different in quality from the pleasure, excitement, and tension experienced in other phases of life, we cannot say with certainty; but the evidence so far is on the side of the assumption that erotically associated affects are the same in quality as the affects that are not found in erotic situations or erotic processes. Pleasure and its opposite affect, the unpleasant affect, are probably functions of the alimentary canal, while tension and its opposite, relaxation, are certainly products of the system of skeletal muscles. Excitement is commonly ascribed to the circulatory system, which includes the heart, veins, and arteries; but erotic affects are not always associated with excitement, so that we may well assume that there is an additional affect of the circulatory system that may properly be called 'erotic,' an affect that occurs in the process of erotic desire.

The armchair theories of the psychoanalysts involve the assumption that all affects are really erotic. Many psychoanalysts believe that erotic affects occur in young children,

even in infants. Most psychologists are not inclined to credit these assumptions.

2. *Reproduction*

Reproduction is a sexual process in the higher animals and in most of the lower animal species. In most plants, also, reproduction is sexual. Reproduction is sexual when it requires the cooperation of male and female, and in animals it can be said to be the goal of all genital and erotic processes. The genital organs have been developed primarily in the interest of reproduction, and erotic processes are contributory to reproduction by ensuring that the male and the female will come together in sexual intercourse and thus may initiate new individuals.

In the human species, coitus is seldom engaged in for reproduction, so far as the desires and intentions of the possible parents are concerned; in the lower animals, reproductive purposes or desires are not assumed, and even erotic desires are replaced by simpler factors called 'drives.' In the human species, the erotic processes that lead to coitus have been described as a 'trap' arranged by nature to impel human beings to coitus, by which new life may be produced.

Reproduction and the further procedures of feeding and protecting offspring are sexual processes not merely because of the genital processes involved in coitus, but in a broad sense they are sexual because they are processes in animals that have sex. The human parental desires to protect and provide economically for children are sexual in the same sense, but in normal parental love there are no factors that could be called 'erotic.' Genital processes are involved beyond the stage of coitus; the child develops and is nourished in the uterus, which is a female genital organ, but there is nothing erotic about gestation or parturition (child-birth). Menstruation also is a genital process, a definite

sequel to the production of an ovum with failure of fertilization, but there is nothing erotic about menstruation.

As we have already noted, reproduction may take place without any erotic antecedents. Some frigid women, who are devoid of erotic sensitivity, erotic feelings, and genital activity, become pregnant and bear children. The only necessary condition is that the man shall be erotic enough to have coitus with the woman and deposit his semen in her vagina. Even coitus, however, is not always an essential process. For nearly a century artificial insemination has been practiced on human beings. By the use of an appropriate syringe, semen from the male is injected into the vagina of the female. This has been a practice of longer standing in horse breeding, to enable a valuable sire to produce more colts. It might be argued that some genital stimulation of the male is necessary to cause the semen to be ejaculated for use in injection, but the situation in masturbation, if erotic at all, is erotic in a way different from that in coitus.

Artificial insemination is practiced in cases in which the husband is sterile, his semen having no living spermatozoa. In such cases, semen from some other male is used, and neither the husband nor the wife is supposed to know who is the real father of the child. In ancient times failure to conceive was blamed on the wife, as 'barrenness,' and simpler and more natural methods were employed by priests to remove the 'curse.'

Failure to conceive may occur when neither husband nor wife is sterile. A married couple who have not succeeded in producing a child may separate, and on remarriage both persons may prove fertile. The attraction of the ovum for the sperm cell is obviously a chemical attraction. An ovum that will attract the sperm cell of one male may not attract the sperm cell of another male; conversely, sperm cells that are not attracted to the ovum of one female may be attracted

to the ovum of another female. In cases in which there is nothing 'wrong' with either husband or wife, but conception fails to occur, artificial insemination is useful, although some couples prefer to obtain a divorce and then marry other mates.

3. *Parental and Filial Love*

Love is sometimes called an emotion, but is better described and designated as a *sentiment*. A sentiment may be defined as a system in which various emotions appear according to conditions. In erotic love, the emotion sometimes called 'tender emotion' appears when the loved one is present, especially when being caressed. If the loved one behaves badly, the lover may have the emotion of shame. If the loved one is in danger, the lover may have the emotion of fear. If someone injures her, the emotion of anger or of hatred may afflict the lover. If she is praised, the lover is pleased or jealous. Every emotion of which the human being is capable appears in the sentiment of love, depending on the circumstances. As for affects of simpler sorts, they also appear in the sentiment of love.

Many of the same emotions and affects appear in the sentiments of parental love, but in normal persons the erotic affects are not involved. The mother, whose love for the child is called 'maternal,' and the father, whose love is called 'paternal,' have fear when the child is in danger; grieve when it is injured or ill; rejoice when it is thriving; are angry when someone attacks it or scoffs at it. The filial love of the child for its parent is a similar sentiment, which involves a wide range of emotions, each of which appears in different circumstances.

Theorists, especially psychoanalysts, have claimed that parental love and filial love are really erotic. Such erotic love of parent for child and of child for parent does occur in pathological cases, but normal parental and filial love is

not erotic. We must accept the fact that emotions, as commonly named, are differentiated not by their expressions, or by their affective or feeling components, but by the cognitive factors involved in them, by the perceptual or thought factors. We may therefore accept the conclusion that the sentiments of parental love, filial love, and erotic love are differentiated primarily by the cognitive processes about which they are organized. It is true that in erotic sentiments and emotions there are erotic affects and genital processes, including genital affects, which set off erotic emotions from all others, but, if there are any affects particularized to other emotions, we do not know of any such. That parental love is sexual, in the broad sense of the term *sexual*, may be admitted, for the love is a function of a person who is either male or female; but if parental love is erotic, it is pathological.

4. *Erotic and Genital Deficiencies*

By deficiency in any function in life, as distinguished from a perversion, we mean an important lack in that function, which may be physiological or psychological or both. Thus, insufficient appetite for food is a deficiency that is technically called *anorexia*. Lack of adequate acid in the gastric juice is a physiological deficiency, which may not affect the appetite. A deficiency may be anatomical, as in persons in whom the organ of hearing is incompletely developed.

Genital deficiencies of the anatomical type are sometimes found. The male organ may be imperfectly developed; female infants are sometimes born without a vagina. The absence of sperm cells from the male semen may be described as an anatomical deficiency. The most commonly recognized deficiencies, however, are physiological or psychological. Impotence in the male is sometimes physiological, sometimes psychological. Frigidity in the female may

be physiological, but is better described as psycho-physiological, particularly in cases in which the frigidity involves lack of erogenic sensitivity in the genital organs. Frigidity in the male, on the other hand, may well be assumed to be psychological. Neither impotence nor frigidity is due to local causes, but is a product of abnormal conditions in the nervous system. In so-called 'psychic impotence,' the male turgescence is eliminated because of a high state of excitement in the period preceding the attempt at coitus. Permanent impotence involves pathological changes in the lower nerve centers, from which the genital organs are directly innervated, changes that may in time become anatomical. Impotence, lack of normal turgescence of the erectile tissue, probably occurs in women as well as in men, but no attention has been paid to this probability. Conventional writers assume that frigidity in the female corresponds to impotence in the male, an assumption that is rather stupid.

Deficiency of erotic desire is a condition that is often persistent in women, but is less frequent in men. In women, this deficiency often accompanies deficiency of erogenic sensitivity, but some women who are devoid of erogenic sensitivity do have erotic desires. Deficiency of erogenic sensitivity seems to occur in men only as a consequence of disease or degeneration of nerve centers or nerve tracts.

The problem of female frigidity has long been troublesome, not only among civilized peoples, but also among savages. It was once assumed that in a considerable number of cases the frigidity is 'constitutional'; that a frigid woman was just 'born that way' and so nothing could be done about the deficiency. This theory is not held today. In almost all cases frigidity is produced by checking of the normal genital development in early life, or it is the result of unfortunate conditions of coitus in the early period of marriage or in premarital coitus.

Proof that frigidity is acquired and is not a fatal consti-

tutional matter has been afforded by many cases. A woman, for example, who is frigid with her husband, divorces him and marries another man, with whom she is immediately normal. Other significant cases are those of women who never attain to the erotic climax with their husbands, but who have the orgasm during sleep. While there may be cases in which the frigidity is due to a defect in the nervous system, such cases, if there are such, are certainly few in number.

A generation ago, there were cases of frigidity that could be traced to the upbringing in girlhood, in which the young females were trained to believe that genital sensitivity and erotic feelings and thoughts were low and vile; that such processes were foreign to the life of a really pure woman. They were taught that coitus is degrading ('nasty' was the term often used), although it was something to which a woman had to submit in order to have babies. Under this tutelage, a girl who took it seriously looked on every genital feeling and every erotic thought as a stain on her purity. It is true that the majority of girls listened to such doctrines with their tongues in their cheeks; but some girls repressed every thought, sensation, and feeling that they were taught was 'shameful' so straitly that their erotic developments were thwarted. Instead of developing into womanhood, they remained infantile and frigid. There can be little doubt that mothers who trained their daughters in the way described were themselves frigid, and, indeed, prided themselves on their frigidity.

There may be some truth in the ancient saying that boys grow naturally into manhood while girls have to be kissed into womanhood, but the great need for girls is not so much for erotic stimulation as for freedom of thought and for a normal outlook on life, in which normal responses are accepted as being normal. Many cases in which normal genital and erotic development had been repressed by im-

proper teaching in girlhood have been cleared up. The readjustment requires a revolution in ways of thinking about erotic and genital responses and conditions. With this, a practical reeducation in erotic practices often does the trick, especially if the case is caught in the early stages of married life. The reeducation of the husband is an essential part of the procedure and sometimes the hardest part. The number of husbands who are totally ignorant of the psychology of women is appalling; husbands who have been extremely promiscuous before marriage are usually among the most ignorant.

With the franker discussion of erotic and genital topics that commenced about thirty years ago, it seemed to some of us that whatever evils the new attitudes might entail, there would be at least one benefit—frigidity would decrease. If women looked on erotic and genital processes as normal, repression of these processes, we thought, would cease, and erotic and genital processes would have a chance to develop normally. Our hopes were vain and our expectations were disappointed. Although there are no statistics indicating the percentages of frigid women—there never have been and never will be any such statistics—it appears that female frigidity is on the increase. Repression of normal thoughts and feelings through false ideals is no longer an important cause, but there are other causes, which have long been with us and which still are operating, and new causes have been added.

Aside from women who have purposively repressed their erotic developments, there are many who develop slowly. This may be due to social conditions determining the lives of girls in their early periods of life; at any rate, the facts are evident. Many women who have eventually reached a full development erotically were not so developed at the time of their marriages. Some women do not succeed in achieving the orgasm until after some weeks of married

life. Others, who might have succeeded, are prevented by the conditions under which coitus too often occurs in the early wedded period.

The husband whose erotic and genital responses are well developed, when those of his bride are not, is apt to arrive at the climax before the wife is well started on the pathway of erotic excitement. After the orgasm, detumescence of the male organ occurs, and the wife is left unsatisfied; sometimes her erotic desire is not fully aroused. Even if the woman's genital sensitivity is fairly well developed, the genital stimulation requires time to produce its effects. Repetition of coitus in this way does not develop the woman's responses, but has the contrary effect. Coitus becomes for her a mere submission to rape. If her incipient genital sensitivity subsides, she becomes simply a frigid woman; but if the sensitivity and the tendency to erotic response persist, she becomes neurotic and may become frigid also.

Unfortunately, most couples with whom coitus is not going well do not seek advice until the condition is well established; and the longer the condition persists, the more difficult is its therapy. When a couple who have been married for six years, and who have three children, decide that something ought to be done about the wife's lack of genital response, we cannot say that the case is hopeless, for that is never certain; but we can say that the probability that the condition can be remedied is low. Even a year of coitus that is unsuccessful for the wife may be expected to produce a difficult case. If, four weeks after marriage, the wife has not succeeded in attaining the orgasm, advice should be sought without delay.

It may seem strange that married couples should be so careless about a matter of such importance, but in many cases they do not know that there is anything wrong. The ignorance of husbands, as we said above, is incredible, and

the ignorance of wives also is great. Sometimes if we ask a woman who we suspect is frigid whether or not she has the orgasm in coitus, she replies that she doesn't know. Why doesn't she know? Because she doesn't know what it would be like! Husbands are often unable to tell whether their wives do or do not have the orgasm; and some husbands do not even know that there is such a thing as a female orgasm! It is evident that a woman who doesn't know whether or not she has the orgasm does not have it; and in most cases the wife whose husband doesn't know does not have it.

Some couples, seeking advice and help, which they know they need, fall into the hands of charlatans. The technique of developing a woman from the infantile status of frigidity to womanhood requires skill on the part of an adviser, and love and sympathy and understanding on the part of her husband. Since estrangement is often founded on the frigidity of a wife, the techniques are important for promotion of marital adjustment.

We spoke of a 'new cause' of female frigidity; although the cause is not altogether new, it is one that has apparently increased during the last generation. This is illicit intercourse, usually premarital intercourse. The reason for the effect of this cause is fairly clear. The development of a girl's 'sexual' responses requires periods in which there is freedom from haste, freedom from fear, and freedom from worry. The conventional honeymoon provides all of these, but the conditions under which illicit coitus usually occurs provides none of them. Coitus in an automobile involves haste and several fears—fear of pregnancy, fear of discovery, and fear of blackmail. Spending the night in an auto camp may eliminate the haste, but the fears are still present. If the emotion of fear in the true sense is not involved, there is at least worry over pregnancy, over discovery, and often over blackmail.

Another cause of female frigidity is the acquirement of an erotic perversion prior to marriage, homoerotism (see p. 231) in particular. This is also a cause of male frigidity in respect to normal sexual intercourse. Homoerotism is not a cause of frigidity in illicit intercourse, for the simple reason that a person who has acquired this erotic perversion usually avoids coitus with a person of the other sex.

Knowledge of the fact that a woman who is genitally unresponsive to her husband, although erotically attached to him, may be 'normal' with another man has led some frigid wives to suppose that a little adultery might help the situation or to wonder whether it would help. If she could achieve an orgasm with a paramour, she thinks, she would be able to respond normally to her husband. Some husbands have been willing for their frigid wives to try the experiment. We have had to advise against this procedure, since the achievement does not carry over to the domestic situation. However normal the wife may be with her paramour, she is still frigid with her husband. Frigidity, in fact, is not so simple as some theorists have assumed it to be, but is a personally selective condition.

There are perhaps exceptions; what is true of a well-established condition of frigidity may not be true of incipient frigidity.

5. *Erotic Perversions*

A perversion is best defined as a habit of perverted desire, and a perverted desire is a primary desire that is turned away from its normal object or objects to an abnormal object or objects, in short, an abnormal desire. Thus, the desire to eat clay is a perverted alimentary desire. Perverted desires that are not satisfied may not be harmful, although they are often sources of worry and causes of maladjustment; usually the term *perversion* is applied to the habit of satisfying a perverted desire.

The erotic perversions that are of the greatest consequence in human life are *autoerotism* and *homoerotism* but some consideration may well be given to certain other erotic perversions, which are really only exaggerations of normal procedures and tendencies.

A. Autoerotism. Autoerotism is literally the production of erotic responses by oneself, without the aid or cooperation of another person. Other terms applied to this perversion in common speech are masturbation—which means literally the use of the hand—self-abuse, secret vice, and solitary vice. The construction of the last two terms is obvious and is related to the *auto* (self) in the technical term *autoerotism*. *Homoerotism*, as the prefix *homo* (same) implies, is the production of erotic responses through the agency or cooperation of a person of the same sex. The original name for this perversion was *homosexuality*, but this term is now avoided in technical discussions, and the term *homoerotism* substituted for it, the reason for the change being that, by playing on the broad meaning of the term *sexual*, fallacious theories have been built up by psychoanalysts and the theories have then been applied to homoerotism. For particular forms of homoerotism various names are used, such as pederasty (the erotic use of a boy by an older male) and Lesbian love or Lesbianism (homoerotic practices by two females).

Although the terms *autoerotism* and *homoerotism* accurately designate the erotic desires, erotic feelings, and erotic thoughts referred to persons of the same sex, the genital response of the orgasm is the terminus of the desire; however, in autoerotic and homoerotic, as in heteroerotic relations, the erotic processes do not always proceed to the potential objective.

Autoerotism is often masturbation in the literal sense of the term, but autoerotic procedures in which the hand is not used to stimulate the genital organs are also called

'masturbation'; even the arousal of erotic excitement and production of the orgasm by imagination alone is sometimes called masturbation. In one usage, 'masturbation' denotes autoeroticism that proceeds to the orgasm, as distinguished from self-stimulation that stops short of that goal, but this usage is not standardized. Children who are incapable of the orgasm and incapable of erotic processes are said to masturbate when they stimulate their genital organs, but it would be better to employ some other term, since these stimulations are not autoerotic.

Male autoeroticism and female autoeroticism must be kept separate for the present. There is much mere theory and unvalidated dogma encountered in both topics, and most of our conclusions in regard to masturbation need to be qualified by the word *probable* or the word *probably*. Some of the conclusions to which we may come in relation to male masturbation may not be applicable to the female perversion.

Once the possibility of masturbation has been discovered by a boy, or the procedure has been taught him by other boys, it is apt to become an obsessive habit. Symptoms of the habit are sometimes observable by parents, but the symptoms are not completely reliable. The boy may become moody, withdrawing from social contacts with other children, and may display subtler psychological changes more difficult to describe. The erotic excitement and erotic stimulation produce activity of all the glands, including the sebaceous glands of the skin, which often results in a pimply face, but pimples result from other causes also, so a pimply face is not a reliable symptom of masturbation.

Masturbation may decrease in frequency in a few years and may be discontinued after the period of puberty is over; on the other hand, in many cases it continues into adult life. The effects of the perversion depend on the age at which it is begun, the frequency with which the victim masturbates,

and the length of time the habit persists. A generation ago it was believed that masturbation produces insanity, by insanity being meant a serious neurotic or psychotic condition such as those included in the wastebasket class of schizophrenia. For this theory there were several obvious grounds. In the first place, the psychological changes in the autoerotist during the period in which the vice is frantically practiced are similar to those which occur in the early stages of mental disorders. In the second place, youths who are becoming neurotic because of any pattern of causes are more prone to masturbation than are healthier youths. In the third place, there is no doubt that, if masturbation is continued into the late period of youth, it is a cause of neurotic maladjustment, even if it is not a primary cause.

Masturbation is more common among boys and young men than it is among girls and young women. Havelock Ellis and the psychoanalysts have contended that there is no essential sex difference, but their conclusions are based on data from pathological cases and must be heavily discounted. The actual sex difference is *probably* due to two factors. The male genitalia are exposed to constant stimulation from clothing and consequently receive more attention than do the female genitalia, which are more protected from external stimulation. Further, the stimulatory effects of spontaneous turgescence are more marked in the young male than in the young female. The slower development of genital sensitivity in the female, to which we have already referred, is doubtless due to these differences.

Masturbation in the male usually begins shortly before puberty, when erotic responses are rapidly developing and when the orgasm is possible. Puberty is conventionally figured as beginning when reproduction becomes possible, when viable sperm cells are produced in the boy's testes and viable ova in the girl's ovaries. This event occurs be-

tween the ages of twelve and fifteen, earlier in some cases, but the determination of this stage of sexual development is difficult, especially for the male. The first menstruation is commonly taken as the beginning of puberty for the girl, but actually ova have been produced before this in some girls, and probably in all. In the boy there is no sign comparable to the girl's menstruation, but the orgasm is possible before the production of sperm cells begins; how long before has not been determined.

In recent years, armchair propagandists have denounced the notion that autoerotism contributes to mental disorders; some have gone so far as to say that autoerotism is not only harmless, but actually beneficial. This is a jump from the mud of the older view into the mire of an equally dangerous extreme. It is true that in the majority of cases the 'secret vice' is not practiced so violently or continued so long that permanent damage is obvious. When the practice continues into late youth, or adult life, it is another matter. In these cases the social difficulties, incipient neurotic conditions that are observable in the early stages of the perversion, are accentuated, and neurotic conditions of wider sorts are promoted. Neuroses, of course, are remediable, but the autoerotic neurotics present serious difficulties to the psychotherapist. Some physicians of wide experience with all classes of the population, general practitioners who are familiar with persons counted as normal as well as with those afflicted with disorders, have held that autoerotism in the male contributes to the disorders of the prostate gland that are frequent among men of middle age and older. The glandular balance, they insist, is disturbed by the abnormal genital process in male autoerotism.

The proponents of the theory that autoerotism is harmless or beneficial are apparently psychiatrists, or specialists in other fields of medicine, whose acquaintance with human beings is restricted to patients who come to them for medi-

cation. If the general practitioners are right, incomplete autoerotism would have worse effects than would the practice that goes through to the orgasm. Many youths think that by stopping their autoerotic practice short of the orgasm they are avoiding danger, but that notion is undoubtedly erroneous.

Male autoerotism, it is believed, has an effect of accelerating the genital response, hastening the erotic process toward the genital climax. If this is true (and its probability is so high that it is almost a certainty), male autoerotism is a factor contributing to the disparity of the sexes in speed of arrival at the orgasm in coitus, a factor, therefore, in promoting marital disharmony of further sorts.

Further effects of autoerotism on the male depend on the autoerotic procedure. Some youths, in their practice, imagine that they are engaging in coitus with a female; this erotic imagination has an exciting effect and speeds the process to the orgasm. Other youthful males do not indulge in erotic imagination but stimulate themselves only in the 'sensory' way. Those of the first type are especially prone to develop neuroses of the 'schizophrenic' sort, in which hallucinations, delusions, and obsessions are characteristic symptoms. If they escape this fate, their vice has effects on later marital relations to a greater extent than does the practice of the merely sensory type.

In normal coitus (heterosexual intercourse), both members of a pair are interested in each other, not simply in themselves. In a sense that is quite real, the two individuals form a larger organism in which the responses are joint responses. This fact has been recognized from an ancient period and has been expressed in various ancient cultures in sayings to the effect that in marriage the twain become one flesh. The recognition gave rise in ancient cultures to a variety of entertaining myths that involved the idea that the human race was originally androgynous—that

is, the two sexes were combined in each individual—and that the sexes were later separated. (Plato's *Symposium* gives a crude form of this myth, and the story of the creation of Eve in Genesis presents a somewhat disguised form.) From these myths arose the notion that in normal coitus there is a temporary return to the more primitive condition of human beings and that this bodily integration may result in a permanent psychological union. The saying that the twain become one flesh is symbolic of the principle that psychologists accept today.

In the 'solitary vice,' on the other hand, the attention of the individual is concentrated on himself, and his purpose is merely to give himself pleasure. Further, he may try to bring on the orgasm as quickly as possible. If this selfish attitude of the male carries over into marriage or into illicit coitus, as it often does, coitus becomes mere rape. The husband is interested only in his own pleasure, and his performance is not motivated by desire to give his mate the requisite complex erotic stimulation. This attitude contributes to the frigidity of the wife and to eventual estrangement.

How much of what is known, or is deemed probable, concerning male autoerotism is applicable to the female perversion is a question on which there is difference of opinion. The eminent gynecologist, Dr. R. L. Dickinson, whose opinions we respect even when we disagree with them, is of the opinion that female masturbation is an important cause of frigidity. He was speaking of masturbation in the literal sense, the application of the hand, or fingers, to the labia, clitoris, and vestibule. This stimulation of the more external parts of the genitalia does not develop erogenic sensitivity of the lining of the vagina and may even inhibit its later development, according to Dr. Dickinson. His opinion, in any event, would not apply to cases in which

autoerotic practices involve the insertion of phalliform objects into the vagina.

The technique of stimulation that is relatively external is adopted in many cases in order to avoid rupturing the *hymen* (the membrane popularly called the 'maidenhead,' which partially closes the entrance to the vagina from the vestibule), lest lack of an intact hymen should be interpreted later by a husband as an evidence of premarital coitus. A question frequently asked by young women is, "Could a husband find out?" The answer is that not even a gynecologist could be certain. The hymen may be apparently unruptured in a woman who has had sexual intercourse, while, on the other hand, it may be rudimentary, or may have degenerated, in a virgin. No bridegroom could determine, from the first coitus, the state of the hymen, except in a few cases in which the hymen is so tough that it is ruptured with extreme difficulty. Pain experienced by a woman in her first coitus is no valid sign; the ancient evidence from bleeding after coitus is quite unreliable.

That some frigid women have practiced digital stimulation of genital organs previous to marriage is undoubtedly true; but how many have indulged in the same practice, and have had no erotic deficiency thereafter, we do not know. Although almost all boys have masturbated at some time, this is not true of girls. Some women have not discovered the possibility of self-stimulation until they have passed well beyond the period of youth, in some cases until ages from twenty-five to thirty. No conclusions can be reached as to the effects of female autoerotism until evidence has been secured from a large group of women who have engaged in the practice at various periods of life. This evidence cannot possibly be secured; attempts have been made to obtain evidence through questionnaires filled out by women, but the questionnaire method is not productive of valid information.

The concentration of a female autoerotist on herself might

have detrimental effects on later genital processes in marriage in certain cases; if the habit of obtaining the orgasm with self-attention is well established, a woman might, in marital coitus, be unable to concentrate her attention in the requisite way, and so the stimulation by the husband might be ineffectual. This is merely theoretical; we have no evidence that such a condition actually occurs.

As regards other mental effects of female autoerotism, we know very little. It does not seem to be an important factor in the production of female neuroses, and the anti-social effects that are conspicuous in boys are not so evident in girls. If the speeding of genital processes to the climax, which is a probable effect of autoerotism in the male, results in the female also, we might consider female autoerotism a perversion that is useful in reducing the discrepancy between the sexes in regard to the speed of arrival at the climax in coitus. However, in view of the paucity of reliable evidence and the conflicting views of experts, no conclusions in respect to the effects of autoerotic perversion in females are possible.

B. Therapeutic Measures for Remedy of Autoerotism. Here, again, we must confine ourselves to the breaking of the male habit, with reservations regarding the applications to the treatment of female autoerotism. Therapy for the cure of autoerotism must follow the plan we have outlined earlier for the treatment of neuroses and neurotic maladjustments. The habit is primarily a psychological one, and the treatment must be psychologically founded.

Most masturbators worry about the habit, and the worry sometimes involves the definite emotion of fear of consequences. Worry, of course, does not help; it is a hindrance to recovery. The victim usually makes an effort to end the habit, but the effort is unavailing, and its failure weakens the victim's practical 'will power.' Worry, fear, and fruitless effort are accentuated if the vice is considered as a

'sin' or if the effects attributed to the habit are exaggerated. Worries and fears occur, however, if the victim is intelligent, even if there is no exaggeration of effects of the perversion and it is not thought of as 'sinful.' Advice and assistance given the youth should follow simple and sound principles.

a. The habit should be explained as disadvantageous, but all religious and moral attitudes must be avoided. The adviser must be obviously not shocked and must avoid implying that the habit is shocking. Personal and social consequences should be pointed out dispassionately, the habit being put on the same plane as an attack of influenza or malaria, as something that is undesirable and is to be ended, but nothing more. Suggestion that the habit is as disagreeable as is a runny nose or a drooling of saliva may be useful.

b. It must be impressed on the victim that the habit does not have permanent evil effects unless it is long continued. It may not be true in all cases that further continuation will be harmless; but the point of view is helpful, in any case, for the reduction of fear and worry.

c. Emphasis should be given to the fact that the victim can free himself from the perversion, but that the riddance cannot be expected to occur suddenly. The patient should be impressed with the fact that it makes no great difference whether the habit is broken within the next month or the next few months.

d. The potential damage of effort to stop the habit should be made plain to the patient. The principle that effort is useful only when applied to particular patterns of action should be explained to him; that effort to refrain from the practice at a particular time may be helpful, but that effort applied to a habit as a habit is detrimental. For example, when the desire or the urge for the practice comes on, he may think, "I won't do it this time," and may well make

an effort to refrain; but he should avoid the desperate thought, "I'll stop now and forever," as a weakening generalization of effort.

e. It must be explained to the patient, and emphasized, that relapses into the practice, which has been habitual, are to be expected and that, in spite of the fact that improvement comes through avoidance of the practice in particular instances, relapse is inconsequential. To this end, the normal saw-tooth progress in all learning and unlearning should be explained.

f. Information should be obtained as to the family and social life of the patient and advice should be given as to the improvement of the factors involved therein. Bad family situations and bad family conditions are often causes of morbid processes of thought and feeling, which foster the vice. Adequate work and play furnish topics of thought that help to distract attention from erotic and genital processes. In some cases enabling the patient to engage in a line of work in which he is interested, with freedom from disturbing home influences, has been a major factor in remedial therapy.

The foregoing rules are general, and for particular cases modifications or additions are needed. In some cases, infected or inflamed conditions of the genital organs need medical treatment, and in all cases attention to the hygiene of cleansing the external genitalia is important, since failure in this respect is sometimes a cause of irritation that produces genital stimulation conducing to the autoerotic practice.

Two forms of advice sometimes given to male autoerotists are to be avoided. Male victims have been advised to resort to prostitutes as a means of breaking the habit. This prescription works effectively only for those who become regular and frequent patrons of prostitutes, thus substituting, as some have told us, one form of autoerotism for an-

other. As a temporary expedient the use of prostitutes is ineffectual, the patient reverting to his former practice when he ceases to patronize prostitutes. Some men practice the two forms of vice alternately, using prostitutes when opportunity and finances permit, and otherwise practicing the 'solitary vice.' It appears that for masturbators, and in fact for most men, in coitus with a prostitute their interest is not in her as a person, but in her merely as a means of giving themselves pleasure, an attitude that is practically that of autoerotists.

The second prescription for the male autoerotist is marriage. While this *may* be an effective measure for the female autoerotist, our information on the effectiveness is lacking. For the male autoerotist, on the other hand, marriage merely leads to marital disharmony, unless he has made some progress toward breaking the habit before marrying.

C. Homoerotism. Normal erotic relations between persons are *heterosexual* in the literal meaning of the term; that is, the relation involves two persons of opposite sex, following in this respect the pattern set by the reproductive process. Perverts of the homoerotic group, on the other hand, are erotically attracted to persons of their own sex; they derive their erotic stimulation from such persons and from such stimulation and from their erotic desires they derive the erotic emotions that eventuate in the sexual orgasm. Homoerotic desires and practices, of course, are 'homosexual' in the broad meaning of the term 'sexual,' since they involve persons of the same sex, but the terms are not synonyms. Homoerotism might be said to be the pathological aspect of homosexuality. Before 1900 the term *homosexuality* and its cognate adjective *homosexual* were used only in the pathological sense, as designating the perversion, so that no confusion was produced by the use of the term.

With the rise of psychoanalysis, however, and under the

influence of the psychoanalysts, the term *homosexual* began to be used in its wider, more literal sense, to designate all relationships between persons of the same sex. This usage has been accepted by psychologists, but they had to invent a new term to designate what was formerly called homosexual and avoid the confusion that was promoted by the psychoanalysts—a confusion that was the basis for theories that seriously mislead laymen. According to the psychoanalysts, homoeroticism is ‘normal’; their way of arriving at their theory we shall discuss shortly. We avoid confusion by using the term *homosexual* with its literal meaning, while using the term *homoerotic* to designate the perversion.

Homosexual relations that are not erotic are normal and beneficial. Men need male friends, and women need female friends. Female groups, such as women’s clubs and women’s auxiliaries, are useful to society as a whole, as well as useful to members of the group. Social and professional organizations of men also are valuable. These organizations, and the relations of members within them, are homosexual, in the literal meaning of the term. A conversation between two men is thus a homosexual conversation. When a group of women meet to play bridge, it constitutes a homosexual bridge party. Such homosexual relations do not conflict with the social relations of men with women, but on the contrary are of assistance in improving heterosexual social relations. This sort of homosexuality is normal, in the full sense of the word ‘normal.’

It is to be noted, also, that the relations between a mother and a daughter, and between a father and a son, are literally homosexual. The filial, maternal, and paternal love involved in such relations are homosexual sentiments, which may be, and usually are, perfectly normal. We can agree without hesitation that a large section of the processes and conditions that can legitimately be called homosexual, because they involve persons of the same sex, are normal.

Psychoanalysts, however, have played upon the recent broad meaning of the term and the former restricted meaning; pointing out that such relations as we have outlined are 'homosexual' but normal, they have arrived at conclusions which, upon examination, are seen to be so naïve, not to say so silly, that they are incredible. Among these conclusions is one which is especially fallacious, namely, that the perversion that we now call 'homoerotism' is normal. The argument, reduced to simple forms, runs in the following way, if we substitute the discriminative term that illuminates the problem: Homosexuality is normal; homoerotism is homosexuality; *ergo*, homoerotism is normal. Of course the term *homosexuality* is used by psychoanalysts to cover both normal and perverted homosexuality, which makes the argument seem more plausible than when the distinction is made by introducing the term *homoerotism*. In simpler form the argument would be: Some homosexual practices are normal, therefore all homosexual practices are normal.

In the theories of psychoanalysts, homoerotic processes and tendencies are assumed to appear early in the child's life. The concept of the homoerotic has been extended in psychoanalytic theory to cover the whole field of the homosexual, a procedure that is made to seem plausible by using the term *homosexual* in a double sense, and from which psychologists protect themselves by using the term 'homoerotic' to designate pathological homosexual processes and habits. In psychoanalytic theory the perversion to which we apply the name is not a perversion at all, but is a normal feature of human life.

In books intended for public reading, this theory is somewhat softened, as other psychoanalytic theories are softened, since the public is not yet ready to accept pervers as desirable members of society. In private practice and instruction, however, some psychoanalysts have carried their theories to their obvious conclusions and have advised pa-

tients to engage in homoerotic practices. The whole theory of homoerotism as a normal tendency, as a phase of erotic development through which every person passes, has no foundation except in verbal confusion and logical fallacy resulting therefrom.

Some persons who are addicted to homoerotism (and whom we call 'homos' for short) are inverts, and the inversion may be physiological or may be merely psychological. While some pairs of homos stimulate one another with no specific differentiation of roles, more often one of a male pair imitates the behavior of a female, playing the female role, and is referred to as a 'passive.' That may be described as an inversion of a psychological sort. The other member of the pair, who plays the role of the male, is not inverted. In the case of female homos, the 'active' one is inverted, and the 'passive' one is not an invert.

The inversion of roles may be temporary; one of a pair may play the inverted role at one time and the quasi-normal role at another time. As the perversion becomes fixed, however, the inversion of roles usually becomes permanent; in the groups of the 'queer,' as they call themselves, certain individuals are specialized to the inverted roles, while others are specialized to the quasi-normal roles. With the fixing of the inversion there usually goes the assumption of mannerisms of the sex imitated and of the attire and decoration. Male inverts are apt to wear feminine lingerie and to have their nails manicured and enameled, and often apply powder and rouge to their faces. Habitually inverted women often adopt masculine types of attire and haircut, which used to make them conspicuous, but which are less noticeable today. *

Some inverts display symptoms not only in mannerisms and attire, but also in physical characteristics, the secondary characters of the male being modified toward those of the female and vice versa. Such modifications, however, are

not reliable signs of erotic perversion, since they are anomalies that often have other causes.

Changes in the secondary sexual characters are assumed to be due to change in the hormone production of the sex glands; the inversion accompanying the modifications may then be designated as *physiological inversion*.

The apparent occurrence of physiological inversion has led some theorists to the hasty assumption that all homoeroticism is due simply to physiological inversion and that the therapy of a homo is a simple physiological problem. Some of the theorists have reported success in therapy by injection of male hormones into the circulation of male homos and by injection of female hormones into the female homos; but sounder experimenters have been able to obtain such results only in cases that are evidently those of physiological inversion. The unsoundness of the theory is evident when one considers the fact that at least one-half of the total number of homos are not inverted even psychologically. Another superstitious theory has been that homoeroticism is hereditary, being transmitted in certain stocks from generation to generation in a simple zoological way. The fact that many cases of homoeroticism have obviously been acquired throws serious doubt on this theory and on the simplistic glandular theory.

While it is probable that there are cases in which inversion is produced by pathological changes in the primary sex glands, it is also probable that persistence in psychological inversion and the attendant emotional conditions may disorder the functions of the glands and thus may eventually produce physiological inversion. This probability is founded on the known effects of emotional conditions on the glands generally; but the particular problem needs investigation. So far, physiologists and gland specialists have paid attention mainly to the effects of glandular changes on behavior and emotion, largely omitting investi-

gation of the converse causal relation. The effects of psychological erotic perversion on glandular balance may be an explanation of some of the characteristics of homos who have not become physiologically inverted.

For the present, it is safe to ignore the theory that homoeroticism is physiologically founded in all cases and to ignore the theory that it is hereditary; to assume, on the contrary, that every individual inherits dispositions from which the perversion can be developed if he is subjected to environmental conditions appropriate to the production of the perversion. We should assume, in other language, that the perversion is learned and that every normal individual inherits both the capacity to learn the normal heteroerotic attitudes and procedures and the capacity to learn the homoerotic perversion. Since there are differences in learning abilities of various sorts in different individuals, we may admit that conditions that will make one person homoerotic may not produce the perversion in another, but the age at which the training commences is probably a more important determinant.

Homoeroticism has a disastrous effect on those who become addicted to it, especially on those who acquire the perversion in youth or in an early adult period of life before a normal heterosexual life has been established. Whether or not most women who have become homos before marriage are frigid we cannot decide from the data available; but we do know that previous homoerotic practices are responsible for certain cases of female frigidity. Concerning men, our information is more comprehensive. Male homos who marry are usually frigid with their wives, because a woman fails to stimulate erotic desire in a man who has become accustomed to obtaining erotic and genital stimulation from another male. Some married homos force themselves to attempt coitus with their wives, as an effort to develop normal erotic interests and normal genital stimulability,

and the performance may beget a child, which is unfortunate for the child, because the family relation is dismal if either mate is homoerotic. A male homo sometimes marries to avert scandal that has commenced to gather around him (the story of such a case in Boccaccio's *Decameron* is typical). The best advice we can give a homo is to do something about his perversion, or her perversion, before attempting a wedded life.

Homoeroticism eventually affects the homo's social relations. Normal social relations become increasingly difficult, especially if the homo suspects that other persons are finding out that he or she is perverted. The homo tends to withdraw from association with normal people and to associate exclusively with the 'queer.' In all cities the 'queer' have their public and private meeting places. In most cities there are night clubs patronized mainly by homos. These places are watched by the police and are closed when any overt demonstrations of homoeroticism occur; a new night club is then opened in a new location. Private parties are held in which male inverts dress in feminine clothing and female inverts attire themselves like men. Various places are used by the 'queer' for meeting others for the purpose of making assignations. Barbershops and turkish baths often serve the purpose for male perverts, but restaurants and shops of various sorts may be utilized. As might be supposed, these places are usually managed by homoerotic perverts.

The social factor makes it difficult for a homo to reform, for it involves a closed circle. In order to form normal social associations the homo must break away from the 'queer' group; when attempting to make the break, the homo will not have the 'moral support' of normal people, who must not be allowed to guess his problem, or of the 'queer' group, who will constantly attempt to bring him back into the fold. On the other hand, most perverts who have adapted themselves to the life of the 'queer' are satisfied with that life and

do not wish to change. Some, from having been in trouble with the police, or for other reasons, wish to change, but they soon lose the desire because of the difficulties involved. In the early stages of the perversion, especially before social relations have been established with others of the 'queer' class, elimination of the perversion is possible. It cannot be said, indeed, that any case is incurable; but the reformation of a confirmed homo requires much work over a long period from normal persons, and those who are willing to give this laborious assistance, and are competent therefor, do not have the time to give to it.

It might seem that if a male invert should marry a female invert, the perversions of the two might be concealed and the pair might establish normal social relations with other persons. We suspect that this has happened in some cases, but the only case of which we are certain merely approximated the plan. This case involved two persons formerly prominent in the world of entertainment, who entered into an illicit but rather public relationship, but so far as is known did not marry. As to the success of the plan in this case, there is no information.

Homoeroticism is a constant problem in colleges and in other groups of various types, especially in groups which are homosexual in the literal meaning of the term. A confirmed homo constantly tries to seduce others, and so the perversion is apt to spread like an infectious disease. Usually the male homo is an active and makes approaches to younger males to induce them to be passives, but in a few cases the seducer seems to be an invert, a passive. The female homo who seduces younger women seems in most cases to be an invert, a female active; but there may be some female seducers of girls who are not inverts. Leaders in the Christian Associations and the Boy Scouts are constantly on the watch for symptoms, because the homos like to engage in work in such groups on account of the opportunities afforded them.

Boys and young men usually recognize the approach of a homo, but girls and young women often do not understand what an older woman is driving at until an unpleasant situation develops. All girls should be made to know that when an older woman who is not her mother or her aunt pays her the attentions that a man would normally pay to a woman he courts, when she is constantly solicitous, making birthday presents, sending flowers, gushing in her attitude, and in various ways putting the girl under obligation, there is something wrong, and the girl should withdraw from the impending entanglement.

A man who caresses boys, who is constantly putting his hands or his arms around them, who talks affectionately to them, is under suspicion at once. He may be just a fool, but too often he is a homo. These symptoms are among those for which directors of boys' groups are constantly on the watch. In college the approaches are usually more concealed. Women's colleges appear to be the most afflicted by groups of perverts, but coeducational institutions are not free from them. Dramatic societies in men's colleges, where men take feminine roles, are often sources of trouble. Of course this is not true of dramatic societies in which, although men take feminine roles in feminine garb, they make no attempt to act like females, but act simply like men in women's attire. The plays are reduced to the level of farces, but that has nothing to do with our topic. On the other hand, any fellow who is a great success in female impersonation, who imitates successfully the female voice and female behavior, may well be suspected of being an invert, and the suspicion is usually verifiable as a fact. On the professional stage, the noted female impersonators of the past have been considered by other members of the theatrical profession to be notorious inverts and have accordingly been socially taboo to other members of the profession.

The impersonation of men by women appears to be a

different matter. In many dramas and some operas it has been conventional for women to fill certain male roles, but the actresses who have been most successful in those roles have never been touched by the breath of scandal. In dramatic clubs of women's colleges there seems to have been no relation between male impersonation and sexual inversion.

Some boys' schools have been centers of homoerotic perversion. Graduates of one well-known prep school east of the Mississippi River told us a few years ago that every boy entering the school was compelled to submit to the perverted demands of upperclass boys; if he refused, things were made so unpleasant for him that he had to leave the school. Whether the situation has changed recently, we do not know. Some of the boys from the school described were able to overcome the perversion later, but some to our knowledge were unable to break the habit.

A condition in schools and colleges in an earlier period, which conduced to the formation of erotic perversions, was the assigning of two boys to a room with a double bed. This provided opportunities leading to mutual genital stimulation, and from mutual masturbation to homoerotism of other sorts the progression was not infrequent. The modern practice of assigning separate beds is an improvement.

6. *Minor Erotic and Genital Perversions*

There are a number of perversions that are pathological exaggerations of processes that sometimes occur in less conspicuous forms in relations between normal persons of the two sexes. Among these are *sadism*, *masochism*, and *fetishism*. These perversions may be called *minor*, since they are exaggerations of processes that are not infrequent among heteroerotic persons. They become habitual in pathological persons and are frequent results of homoerotism. Among

perversions that are restricted to pathological persons, *exhibitionism* is the most troublesome.

Sadism originally meant the obtaining of erotic satisfaction culminating in the orgasm by cruel treatment of the mate. The name 'sadism' is derived from the Marquis de Sade, a French pervert of the eighteenth century. Under the unfortunate influence of psychoanalysts who hold dogmatically that all life processes are erotic, the meaning of the term has been extended to include cruelty and cruel tendencies of all sorts. A medical dictionary, for example, gives a valid definition of sadism, and then supplements it as follows: "Sadism is not confined to sex-expression; it is a mob characteristic, and one found in slave-driving bosses" (Taber, *Cyclopedic Medical Dictionary*, 1940). This confusion is, as we have said, unfortunate, since it bolsters misleading conclusions. It is true that some sadists are cruel in situations in which erotism is not involved, but other sadists seem to be mild and gentle in circumstances of other sorts, while many very cruel persons are not sadists. Cruelty in erotic processes and cruelty in nonerotic processes must be distinguished from each other. We shall doubtless have to invent another term to indicate the original meaning of the term 'sadism,' but we have no other term as yet. Hence what we have to say about sadism is to be understood as referring solely to the original meaning of the term.

Rough treatment of a woman in coitus occurs in situations that cannot be considered as abnormal. This treatment often takes the forms of pinching, biting, or strong squeezing. Treating a mate roughly is primarily an expression of exuberance and excitement, and, in some cases, such treatment is necessary for a woman to produce her complete response; it is also helpful to the man in some cases. For a husband who is frigid, but not impotent, we prescribe rough treatment of his wife before the final stage of coitus.

Women also sometimes treat their husbands roughly, and such 'manhandling' increases the woman's erotic excitement and accelerates her progress to the climax. For frigid wives, we usually prescribe rough treatment of their husbands and also by their husbands. For normal cases the treatment should not go beyond the point at which it becomes highly unpleasant; pain, in the sensory meaning of the term, may be produced by biting, but pain is not necessarily unpleasant.

In pathological cases it is usually a male who is perverted, who derives erotic satisfaction from treating a woman with actual cruelty. In one noted case reported in the press a generation ago, the man made a practice of whipping young women on their bare posterior surfaces; whether or not he attained the orgasm by this procedure the papers, of course, did not say. The notorious Jack the Ripper, who killed and mutilated prostitutes in the Whitechapel area in London, was obviously a sadist; there have been imitators of that fiend who have not received so much publicity.

Masochism is a term derived from the name of a German pervert, Sacher-Masoch, and designates a condition somewhat complementary to sadism. In pathological cases, the masochist is a male who can arrive at the orgasm only by being maltreated. The maltreatment is usually physical, but in some cases abusive language applied by the mate is effective. The masochist is usually, if not always, physiologically deranged, the activity of the primary sex glands and of the adrenal glands, and presumably of other ductless glands, being at low ebb. It might be assumed that women who require rough treatment in coitus are masochists; but it is best to avoid that Freudian confusion, recognizing as masochism the pathological exaggeration of the condition which, although it is found in some, not all, women who are otherwise normal, is never found in a normal man.

Fetishism is the term conventionally applied to cases in which genital turgescence and the orgasm are derived not

from stimulation by another person, but from seeing or touching an article of clothing or some other object associated with a person who might under normal conditions produce the genital responses or from contact of the fetishist's genitalia with some part of the body of another person other than the genital organs of the other. Although fetishism sometimes occurs in homoerotic cases, the fetishist is usually a male who requires visual or tactual stimulation by the shoe, foot, or lingerie of a woman.

That fetishism is a pathological exaggeration of a normal tendency is obvious when we consider the sentimental and stimulating effects of a glove, a handkerchief, or other article associated with a loved one. If we further consider the effects of the odor of the loved one's hair and the normal stimulation derived from contact with any part of the loved one's body, the situation is clear. In these cases, the fetish is an accessory source of stimulation, which is neither necessary, essential, nor sufficient to produce the complete erotic response. When the fetish becomes essential there is perversion, and when stimulation by the fetish alone suffices to produce the orgasm the perversion has reached its extreme stage.

Fetishism is a necessary source of stimulation for most homos, whose substitution of a person of the same sex for one of the opposite sex is seldom complete. This explains the practice of dressing of the passive male homo in woman's attire and his adoption of female characteristics of behavior. These details are fetishistic aids to the sexual stimulation of the active male homo. Whether this principle applies to the dressing of female actives in men's attire, we do not know. Fetishism is often combined with sadism and with masochism.

Exhibitionism, in its original meaning, was a term applied only to a perversion that occurs usually in men who are mentally and morally degenerate, although there is occa-

sionally a female exhibitionist. The typical exhibitionist is a man who seeks to display his genital organs to the view of other persons, especially to women. There is a constant occurrence of exhibitionism in the vicinity of women's colleges. Degenerates lurk at the entrances of alleys, or invade the campus, waiting for a chance to expose their genitalia to young women. Such exhibitionists sometimes frequent the campus of coeducational institutions.

Under the influence of the psychoanalysts the terms exhibitionism and exhibitionist have been extended in meaning in a way similar to the extension of the meanings of 'homosexual' and 'sadism.' Any 'extroverted' trait, such as the wearing of flamboyant attire, loud talking, or otherwise attempting to bask in the limelight, has in recent years come to be described in popular language as 'exhibitionism,' and the person trying to attract attention is called an 'exhibitionist.' So what used to be called simply 'exhibitionism' must now be called 'genital exhibitionism.' To the psychoanalysts, of course, any attempt to attract the attention of other persons has an erotic basis, but that dogma is obviously false.

There is a perversion which is the reverse of genital exhibitionism, or perhaps we should say complementary to it, for which there is no standard term in English, but for which the French term is *voyeurisme*. This is a perverted desire to see the external genitalia of another person. The pervert of this class is called in French a *voyeur* and in colloquial English a 'peeping Tom.' These perverts are usually male, as the names imply, and their usual desire is to see the external genital organs of females; but *voyeuses* are sometimes found, although we have no English name for these female 'peepers.' On the other hand, some male homos have a perverted desire to see the genital organs of other males.

7. *The Change of Life*

At some point in the period of life which we loosely call 'middle age' every woman undergoes a physiological readjustment, which is technically called the *menopause* or the *climacteric*; in the vernacular it is called the 'change of life.' According to statistics that may be accepted as approximately valid, about 40 per cent of women go through the readjustment between the ages from forty-six to fifty. In about 15 per cent of cases, the change occurs at ages from fifty-one to fifty-five, and about 25 per cent of the cases at ages from forty-one to forty-five. In about 12 per cent of cases the change occurs at ages from thirty-six to forty. In the remaining 6 or 7 per cent of cases it occurs before thirty-six or after fifty-five.

In many cases there are troublesome organic symptoms, especially physical weakness, although some women pass through the change with no serious physical upsets. In a certain number of cases there are mental disorders, the symptoms of which are common to various neuroses and psychoses. There is a temptation to say that in these cases the women are suffering from an organic psychosis, since there is a definite organic cause at work. The organic change, however, is not the primary cause of the mental disorder, but is only a predisposing cause in some cases and a precipitating cause in others. Similar mental disorder occurs in some women who are not even near the menopause, and in other cases it appears several years after the menopause. Some men, late in life, display mental symptoms similar to those of women, although there is no physiological readjustment in the male comparable to the female menopause.

The basic change at the menopause is reduction and finally cessation of the functions of the ovaries. Since in both sexes the internal secretions of the primary sex glands

are important factors in the physiological functions of the organism, the menopause could be expected to bring about a radical change in the organic life of the woman. Menstruation and ovulation cease. Since the secondary sex characters depend for their development on the hormones secreted by the primary sex glands, the secondary sex characters of the woman, except for those which, like the skeletal conformation, are permanently fixed, tend to be reduced at or following the menopause. The subcutaneous fat is reduced and the structure of the breasts changes, and a woman may even develop male secondary characters, such as a mustache.

The metabolic processes in the female are determined in part by the internal secretions of the primary sex glands, through the effects of the sex hormones on the other glands of the endocrine group, the pituitary, thyroid, adrenal glands, etc. The rate of heartbeat is higher in women than in men, and it is suspected that food substances are handled differently by the two sexes. At any rate, the physiological readjustment through which a woman goes at the climacteric is of a serious nature, and it is not surprising that many women are organically upset and some become mentally disordered.

The mental symptoms displayed in cases of mental disorder at, before, or following the menopause, are various. Delusions, obsessions, and phobias may appear. The most common symptom is *agitated depression*, a state of depression accompanied by excitement. In other cases a simple profound depression, described as *involutional melancholia*, appears.

Since the woman at the menopause is afflicted by lack of the hormones formerly supplied by her ovaries, it would seem that artificial supply of the hormones might solve her problem. In some cases in which the organic symptoms are severe, the hypodermic administration of the female hor-

mones may relieve the conditions, but if there is mental disorder such therapy may make matters worse.

Readjustment at the menopause is a normal process through which every woman has to go, and interference with it may be dangerous. It is possible that if the female hormones were administered in an early stage of the menopause the process might be delayed, giving a longer period for readjustment, but the dosage is usually begun only after serious symptoms have appeared.

The treatment accorded women at the menopause often is appalling. A few years ago, when shock treatment was being recklessly applied, some poor women were given metrazol shock or insulin shock. By destroying brain cells in the cerebrum, the shock treatment makes the person infantile and thus more easily controlled, which is no better than keeping her under the influence of narcotics.

Good physical hygiene, sympathetic care, with social stimulation by family and friends and practical employment, seem to include the most helpful features of treatment. A nursing home may be a good place for her if the treatment does not involve isolation, but to put the patient in an institution in which she is lonesome causes her to concentrate on her topics of worry, fear, and obsession and is therefore both cruel and harmful. In cases in which mental disorder has become acute, about two years is needed for recovery under the best conditions. In less acute cases, the period may be shorter.

Prevention is the main point to be considered. It is significant that many women have little trouble at the menopause and that, of those who suffer physically, a minority become mentally disordered. Such differences may be in part due to differences in physical hygiene—food, exercise, and rest—but the more important difference is psychological. The physiological change of life is weakening and can be considered a predisposing cause of conditions of which the

primary causes are psychological. In the cases of women who become mentally disordered at the menopause, there is a 'psychological change of life,' which occurs at about the same time, although its foundations are often laid earlier. An illustration or two will explain this.

One woman had been, as she thought, highly useful. She had run her household, bossed her children, and to a certain extent had managed her husband. She even laid out his clean shirts for him and attended to his needs in other details, as wives were wont to do in the old days. Her life was filled with service, and her vocation was definite. The approach of the menopause reduced her physical ability and made her more easily fatigued. She had to reduce her activities and found that the reduction made no great difference to her family. Her children had grown up and no longer needed her guidance. Her household was smoothly run by a servant under the direction of a grown daughter. More disconcerting still, she found that her husband could very well look after himself. The vocation, in which she had been useful, was gone. Her life had changed, or she had discovered the change, which is practically the same thing. She had no avocation to which she could turn. She had not been a clubwoman and had no literary or artistic flair. Her family were all busy during the day, so she had too much time to brood. She developed a typical agitated depression, in which worrying was involved. She had time to worry and worried about anything that was handy. Reflecting on her past life she repented of this, that, and the other detail, nothing of any importance, but when one becomes a repentor anything will do. A companion would have been a help, except that she had spent her life looking after other persons and could not brook being looked after. Fortunately, no drastic treatment was applied, and she was given sympathetic attention, with time for recovery.

Another woman had not been much of a housewife. Her

husband managed the home and could, in a pinch, do the housework. The woman put her energy into activities of a socioreligious type. She had a way with young folk and taught a large and important Bible class. She was in constant touch with her young protégés in her home as well as in church affairs. She treated her children much as she treated the other young folk, so she did not do them much harm, although they improved when they got away from home to live elsewhere.

The climacteric enfeebled this woman, and she let up in her work, temporarily she thought, but others were ready to take over. She discovered that she was no longer competent in the work to which she had devoted her life. She was not in touch with the new generation of youngsters; others were better qualified for the work she had carried on so well. The vocation to which she had devoted herself had walked out on her. She had no substitute vocation to which she could turn, so she developed agitated depression in an extreme form and was a great problem to her family and the doctors. She wanted her husband to establish a foundation, in which she might continue her social work in independence of the church group, from which her activities were eliminated. Fortunately, the husband did not do as she wanted him to do. She solved her problem, taking over two years for the process, by becoming a housewife, although she was not happy at first.

In men, the reduction in activity of the primary sex glands progresses more slowly than in women, so that there is no rapid change comparable to the female climacteric. More time for readjustment is thus afforded; moreover, most men before it has become too late have acquired an avocation to which they turn eagerly when their vocations fade out. Some men have long wanted to write; others have the ambition to take up golf in a serious way. University professors, when made emeritus, turn to research that they have

always wanted to do but from which their other university duties have kept them. They do not always accomplish much in research, but they potter away happily.

Some men, however, have mental disturbances in their old age, comparable to the trouble that some women have. One man, who had managed his business personally in all details and had ruled his family dictatorially, arrived at an age at which he could no longer work as he had been accustomed to do. His family had grown up from under his thumb, and, as he had no interests outside his business, he developed agitated depression of a typical sort. He could have put his son in charge of the business and was advised to do that and to find something else to do or to act as assistant to his son. He obstinately refused to take sensible steps, and what eventually happened to him before death, we do not know.

Women whose married lives have been unhappy, or whose plans for life have been completely thwarted and their desires frustrated, sometimes display the mental disorder before the menopause; if the psychological change of life is delayed until after the physiological readjustment has occurred, the mental disorder is correspondingly delayed. The mental disorder at the menopause seems definitely to be a product of psychological causes, with which the physiological changes may cooperate as predisposing or precipitating causes.

Disasters of the sort we have described can be prevented if the causal factors are foreseen and measures are taken to by-pass them. Every young woman should develop an avocation that can be substituted for her vocation. When her children have grown up and are independent, there should be something in which she has developed an interest and to which she can devote herself. Club work has been the salvation of some women. Knitting and crocheting have saved others. Writing and painting have had

their usages. I suppose bridge, seriously cultivated, may serve the purpose.

What about the working women in offices and shops? Most of these employed women show no mental disorder at the climacteric, even if they suffer physically, but some who have lived isolated lives, inhabiting small apartments with no companions, collapse when they are retired from their jobs at or about the menopause. The housewife who does her own work may suffer physically at the menopause, but is seldom afflicted mentally, since her work does not fold up completely even when her children are independent.

We are often asked about the effect of the menopause on erotic desire and erotic stimulability; the answer is that there are individual differences. In some cases the erotic factors in life are reduced, while in other cases these factors are accentuated, after the menopause. In some cases the menstrual period may be absent for as much as two years and then return if the woman has a new and exciting love affair. That reproduction may be again possible, as in the Biblical story of Sarah the wife of Abraham, cannot be negated, since menstruation indicates the previous production of an ovum. Neither for men nor for women can an age limit be set beyond which erotic processes do not occur. We have little information about centenarians, and individual differences dependent upon the condition of the nervous mechanism controlling the organs of circulation are important determining factors, but, for the human race as a whole, the age of ninety is not the limit.

8. *Family Limitation*

Procedures that reduce the probability of conception are classed under the headings of contraception, birth control, and family planning. Contraception has long been a matter for debate which is often acrimonious. Groups organized for the promotion of birth control are opposed by other

groups that seek to prevent it. Those who wish to maintain or increase the rate of reproduction of their groups have employed four methods: (a) Propaganda urging the members of the group to reproduce; (b) offering of economic rewards to parents; (c) promotion of illegitimacy; (d) banning of contraception.

None of these methods has been successful. The Germans have tried the propaganda and illegitimacy methods, and possibly the prohibition of contraception. In other countries, economic rewards have been offered, usually through a slight reduction of taxes. Any economic reward that could be effective would entail such a heavy burden of taxation on nonparents that it would cause economic disaster. The small exemptions for children offered in income taxes certainly would not induce any couples to beget children. That promotion of illegitimacy ever increased the birth rate is improbable, since an increase in illegitimate births would reduce the number of legitimate births. Mere propaganda for increase in the number of births has never accomplished its purposes. Hence, the stock method has been the banning of birth control and the prohibition of sale of contraceptive materials and appliances. This leads merely to bootlegging, and if contraceptive methods are obtainable, legally or illegally, they are employed. At the present time contraceptive appliances are obtainable from any drugstore and are often displayed in the drugstore windows.

The banning of contraceptive materials produces evils of various sorts. It gives a greater chance to the vendors of fraudulent materials and materials that are harmful. It prevents the dissemination of scientific information. Some years ago I twice ordered a book by an eminent English medical authority, which dealt with the menstrual function, but both times the book was confiscated. Such situations have been blamed on the late Anthony Comstock, but the

'Comstock Act,' as submitted to Congress, banned only obscene materials and had no reference to contraceptive information. These bans were slipped in illicitly between the presentation and the final reading of the bill.

The problem of contraception is no longer one of religious ban or legal prohibition. The declining birth rate, as everyone knows, is due not to a decline in fertility in human beings, but to the practice of contraception. If you look around you, you will observe that the sizes of families vary, in the main, with economic and educational levels.

This situation raises a problem that should be of concern to those who are able to give it serious consideration. Is a differential birth rate determined by economic levels and standards of living a safe thing, or does it endanger our social system? Without attacking our social-economic system, which has its virtues as well as its faults, it can be pointed out that its worst features can be maintained and promoted by a relatively greater birth rate in the population in the lower economic levels. Such a differential tends to concentrate wealth while providing for a supply of cheap labor. Whether or not this has been the reason for some of the opposition to birth control we cannot say, but it might have been. A differential birth rate determined by economic levels may eventually lead to revolution, but revolution is not necessarily progress.

A reason sometimes given for opposing birth control and opposing the dissemination of scientific information on the topic is the belief that if scientifically approved contraceptive techniques were available to the public at low cost, illicit intercourse would be greatly increased. The belief of such objectors is that the most important deterrent to illicit intercourse is the fear of conception, which no benefits to married couples would offset. These beliefs should be considered critically.

A. It is by no means certain that fear of conception is an

important deterrent. In spite of the fear, the number of illegitimate births yearly is high. The number of abortions by unmarried women also is large, and infanticide is not infrequent. These results compose a social evil of considerable magnitude. Illegitimate children are deprived of their rights; abortion, even when it is not fatal, is injurious to women. In ancient times infanticide was approved, but no one holds a brief for it today. Anything that would reduce this social evil would be so beneficial that a conjectured increase in illicit coitus would be a minor evil in comparison.

B. Against the uncertain deterrent effect of the fear of conception must be set the damage done by the fear itself, especially when it endures for weeks after illicit coitus. Further, from a moral point of view, it should be said that chastity that is founded merely on fear of conception is not a sort of chastity to be highly regarded.

Many popular methods of contraception are ineffectual and some are damaging to women. A great many children have been born of women who had practiced methods of birth control in which they had been instructed in birth-control clinics. Expense is a deterrent to some of the poorer classes. There have been many women during the last thirty years who wished to have no children because they well knew that their children would have little chance for adequate living conditions and for education, even low chances of survival through infancy. Some of these women were in the condition of the old woman in the shoe, who didn't know what to do; but to others the expense of contraceptive materials was the obstacle. Some of the poorer classes, of course, are too lazy to take contraceptive measures; the male, in particular, is disinclined to take the trouble.

Sterilization, of course, is an effective contraceptive procedure, but it is permanent. So far it has been employed only to prevent reproduction in groups of persons who are

disliked by those in control. Sterilization has been practiced in civilized countries only on the feeble-minded, but eugenicists look forward to its application to criminals; by criminals, of course, they mean the small group of criminals who are so unlucky as to be apprehended and convicted. Apparently, some of the eugenicists have in view an extension of sterilization even beyond the class of convicts, to those who disagree with them in politics or in economic views.

Sterilization is not asexualization. Asexualization is the removal of the sex glands—castration of the male and ovariectomy in the female—which not only abolishes the reproductive function, but also reduces erotic processes and disturbs the glandular balance. The sterilizing operation usually performed consists simply of cutting or tying the ducts that convey the sperm cells from the testes in the male and the ova from the ovaries in the female. This prevents reproduction but leaves the glandular balance and erotic processes relatively unchanged. If the operation were performed on persons of either sex without their being informed thereof, they would notice no change whatever in their lives, except that they had become incapable of reproduction.

The operation of sterilization for the male is a minor one, requiring only a local anesthesia, an operation no more serious than the removal of a mole from the skin. For the female the operation is risky (a 'capital operation'), since the abdomen must be opened in order to get at the ducts, and is performed under general anesthesia. No surgeon would be willing to undertake this operation unless the woman were in such a condition that a pregnancy would be fatal to her or unless she were branded as feeble-minded. Some married women, however, when undergoing an abdominal operation, as for removal of the appendix, persuade

the surgeon to sterilize them, and in such cases no additional risk is involved.

Various other methods of female sterilization have been tried, methods that avoid opening the abdomen, but none so far seems to be both successful and devoid of danger.

9. *Dangerous Contraceptive Procedures*

Some of the popular contraceptive techniques, I have said, are dangerous. It is not permissible in a book of this sort to advise as to safe methods, but we can warn you against the methods that entail physiological or psychological danger. All drugstores sell syringes for what they call 'feminine hygiene'; that is, for douching after coitus. While washing out the vagina may be effective, if the douching is done immediately, provided the sperm cells are not already in the uterus, the necessity of doing it at once inhibits the normal letdown and may contribute to frigidity. If the strong antiseptics that are widely advertised for feminine hygiene are used the danger is increased. These antiseptics destroy the lactic-acid bacteria that normally protect the internal genital organs of the female against invasion of staphylococci, streptococci, and other common germs and may result in serious infections of the genital tract.

Appliances which are to be inserted into the vagina before coitus are not effective, in spite of their recommendation by birth-control clinics. The contraption most widely recommended covers the upper part of the vagina, and thus reduces normal stimulation by the male phallus. Further, the need for preparation beforehand, in cold blood, inhibits the normal progression of the female to the condition in which she desires coitus. That this is conducive to frigidity, especially if the technique is employed in the early period of married life, there is little doubt. For a fully developed married woman, the danger would probably be less.

An old superstition, which has recently been revived, is

the belief that there is a 'safe' period midway between the periods of menstrual flow, during which period conception will not occur. This superstition has no foundation; there is no time at which conception may not occur. This superstition probably arose from two facts: first, that there is a variation in erotic stimulability during the interval between menstrual flows, although the variations follow different time patterns in different women; second, that the probability of conception is greater if the woman has the orgasm, the attainment of which depends on stimulability as well as on stimulation.

Since the opposition to contraception has lessened, scientific work on the problem is more possible than it was a generation ago. Fewer persecutions of those who disseminate information occur, and most physicians today will give information to married couples.

MARITAL ADJUSTMENT AND MALADJUSTMENT

1. *General Conditions of Marriage*

Maladjustment of relations of husband and wife might be called 'social maladjustment,' since the family is indeed a social group, but marital maladjustment is nevertheless a personal matter and can be remedied or prevented only by attention to personal factors.

The marriage of a man and a woman constitutes a family, whether or not there are children produced by the union. In earlier centuries, the family was the basic social group; families were the units of which the political group (the state, nation, city, or tribe) was constituted. In recent times this situation has changed and has changed with increasing rapidity. Although there is still relation of the family to the political group, families have ceased to be the groups of which political groups are composed. Instead of wives being responsible solely to husbands, and children solely to parents, with the head of the family responsible to the state, there is a closer and more immediate relation between the individual and the state. This responsibility of the individual to the political group, and responsibility of the political group for the individual, can be expected to increase further.

Of the ancient economic functions of the family, the only ones that have not been substantially reduced are the 'feeding function' and the function of caring for children, espe-

cially in the period of infancy. For the second of these functions, however, the state is assuming greater responsibility than in earlier periods.

The religious function of the family has been waning for some time, and public education administered by the state has largely displaced the educational function of the family, in respect to both cultural education and vocational training.

The family, however, retains one function of fundamental importance, namely, its function of promoting personal development and stability of life of men and women. However much the religious, economic, and educational functions of the family may decline—and further decline in these functions can be expected—there is no probability that the personal function of the family will decrease; it will probably be increased. Only the wrecking of civilization and the substitution of a slave-state system could make the family dispensable.

Consideration of marriage and marital relations in any given area and period should involve understanding of the complexly variable systems of marriage that have existed, and still exist, in the world. Our time does not permit such a comparative discussion of family systems.¹ For our purposes it is sufficient to note that four forms of marriage have existed and still exist: (a) Monogamy, each person with one mate; (b) polygyny, men having several wives; (c) polyandry, women having several husbands; (d) mixed marriage, which combines polygyny and polyandry. Each of these forms of marriage seems to have been satisfactory wherever and whenever it was established and conventionally adhered to. The superiority of one form of marriage over another cannot be estimated abstractly, but depends on the total culture of the peoples concerned, especially on the economic system involved in the cultures.

¹ For fuller presentation of marriage systems see my book *Civilized Life*, chapter on Marriage and the Family.

Comparison of different forms of marriage is further complicated by the degree of strictness or looseness in the marital relation and by the permanence or brittleness of marriage. A strict monogamy, for example, in which there is sexual intercourse only between husband and wife, is quite different from a loose monogamy in which extramarital coitus is prevalent. The sort of extramarital intercourse permitted—whether premarital only, or permitted to married persons; whether permitted only for men and a small class of women (harlots) or permitted to men and women alike—makes an important difference in relations of husbands with wives.

As for permanence and brittleness, a system in which mates are sentenced to life terms, whether they like it or not, is quite different from a marriage system in which divorce is easy for men and still more different from a system in which divorce is easy for husbands and wives alike.

It is further to be noted that among peoples who are unlettered (misleadingly called 'primitive peoples') the official marriage system, whatever the degree of brittleness or permanence and the degree of strictness or looseness, is the system actually followed and usually adhered to rigidly; while among many people we call 'civilized' the official (legal) marriage system may not be the system actually followed. In considering marriage and the conditions for its success here and now, we must have reference to the system actually in vogue, not to a system followed elsewhere or in other periods or to a system that is merely theoretical.

In the United States, the official marriage system is monogamy, polygyny and polyandry being barred in all states. In Utah, when it was a territory, a system of polygyny was in vogue and seemed to be eminently satisfactory to the population, but Utah was admitted as a state on condition that she should prohibit polygamy of both types. In no region of the United States, however, is monogamy strict.

That prostitutes exist in considerable numbers is no secret; and it is well known that they are not maintained by only a small percentage of the male population and not patronized by unmarried men exclusively.

In some parts of the United States sexual intercourse between white males and females of the Negro group (who may not be necessarily in the prostitute class) is considered as a matter of course and is not concealed. This is a carry-over from slavery and its institutions, although in some areas in which there are large Negro populations, intermixture (miscegenation) is socially banned and occurs only furtively.

A generation or two ago, extramarital coitus was accepted as a matter of course for men, while women were separated rather definitely into two groups, virtuous women on the one hand and prostitutes on the other. Although we cannot ignore the fact that some supposedly virtuous women were unchaste, the percentage was evidently small, and a woman who wandered from the narrow path of virtue and was found out even by a small number of persons was virtually compelled to become a prostitute.

There was a type of melodrama common on the stage forty years ago, which centered about the girl who yielded to the importunities of a lover and was about to be turned out of home to become a prostitute, unless the villain repented and made her an 'honest woman' by marrying her. This stage plot represented the real status of social conventions and social practices of that era.

Even twenty years ago we had to deal with girls who had had sexual intercourse and who, although their deflections from the path of virtue were unknown to anyone whose opinions mattered, considered themselves to be "ruined women" for whom there was no hope. The readjustment of these cases was no minor task.

Everyone knows that conditions and attitudes have

changed materially during the last thirty years. Many couples are 'living in sin' (to use an old phrase) and unashamed, although their relations are known to their groups of associates, if not to the general public. These couples are not promiscuous, but for the most part are as monogamous as are couples legally married. A certain proportion of these couples end in legal marriage, but some separate, because they are unsuited to each other. These separations often involve difficulties. A married couple can obtain a divorce, but an unmarried couple cannot. In many cases, the couple living in the condition that can be called 'trial marriage' or '*de facto* marriage' would have a better chance for success if they were legally married, since the fears and worries that surround the unconventional relationship make adaptation to each other difficult.

That promiscuous relationships occur, relationships devoid of any expectation of permanency, is to be admitted. That such promiscuity has increased in recent years is not certain. Some who deal with young persons hold that male promiscuity has decreased, while some hold that female promiscuity has increased. While these are conjectures, not certainties, it may indicate that the old double standard is on its way out, a benefit if true.

Marriage obviously is an institution that is in flux. Whether we like it or do not like it, changes are in progress and cannot be stopped. The causes of the changes, and the circumstances that promote them, are matters of importance to those who are concerned with the problems of marital adjustment. There is an increasing recognition of the fact that marriages are not always successful and that the maintenance of an unsuccessful mating may be disastrous to the two persons concerned as well as to their children, if any. No sensible marital counselor thinks that marriages should be kept intact at all costs. Recognition of this principle has

reached the public and has changed social attitudes toward divorce.

Religion certainly has less control of marriage than it had in earlier periods, and this change has doubtless had its effects on social attitudes toward divorce. The availability of contraceptive information and materials to the general public may have been a factor involved in the changes. Economic changes, however, have been the most influential factors. The increased economic independence of women has certainly had the results that, a generation ago, were predicted by the opponents of the emancipation of women. A woman today can live without either sale or rental of her person. Aside from public scandal, one who employs a woman who is competent for her work is not apt to be concerned as to whether or not the woman employed is virtuous. The rigor of what has been called the 'Women's Union,' which formerly regarded as a wage cutter or scab the one who yielded her person without exacting the price of presumably lifelong support, has notably relaxed.

Among the results of the changed status of marriage there is one which is especially worthy of notice. There are few, if any, 'ruined girls' at present. The old-time melodrama of which I spoke, with its central figure of the ruined girl, used to make audiences shed tears, although the weeping did not seem to reduce seduction appreciably. Today, a melodrama of that type would be laughed off the boards. Female virtue is no longer identified exclusively with the unruptured hymen, and a considerable number of young men are unperturbed by the lack of virginity in the girls they marry. Whether you applaud this change or are aghast at it makes little practical difference. It is a factual change about which nobody is doing anything and about which few, if any, intend to do anything.

Social changes are as predictable as are physical changes, and the basis of prediction is similar to that of physical pre-

diction. Changes that have been occurring progressively can be expected to continue, unless there is a social cataclysm. The time feature of the prediction is a little less definite for social prediction than for geological, but that is the main difference. Changes that are continuous are always progress, for progress is best defined by the old phrase, "Gwine whar we's gwine."

2. Causal Factors in Marital Adjustment and Maladjustment

In discussing marital adjustment we prefer to approach it from the negative point of view, that of maladjustment. The causal factors in marital maladjustment that we shall present are not theoretical, but are factors that have been discovered in operation in many maladjusted families. It is not claimed that any of these factors necessarily produce marital maladjustment; families afflicted with one, or even more than one, of these factors have overcome the effects and survived. In marital maladjustment, as in maladjustments of other sorts, it is probable that a potential cause of disorder does not produce disorder unless there are other causes cooperating. Here, as elsewhere, we do not look for a cause, but for a pattern of causes. When poverty, for example, appears to be a cause of marital disharmony, we want to know what else is wrong, and the cooperating causes are usually discoverable without difficulty.

A. Ideals for Marriage. The primary condition for marital success is the application of adequate standards, or, in other words, the possession of adequate ideals, together with the desire to attain to the ideals. The objectives determine the kind of success that may be attained in marriage. The important question for persons contemplating marriage is therefore: What do you expect from marriage? What do you hope to get out of it? It is important also to know what ideals are held by the contemplated mate, since, if

mates are working for different objectives, those of neither will be attained.

For some women the answer unquestionably is a meal ticket. For some men the answer is a housekeeper or, on a lower economic level, a cook and general servant. As a mere business arrangement, marriage may be successful as judged by these standards. Success on these levels requires a technique of selecting a mate and a technique of maintaining marital relations; but we are not interested in these, because there are problems of greater importance concerning more important people.

For some men, and a smaller percentage of women, the objective in marriage is satisfaction of the specific desire for coitus. A story frequently heard, usually from men whose marriages turn out badly, is to the following effect: "I had to marry (or I am going to marry) because I can't afford to patronize prostitutes and cannot afford the time or the money required to 'make' other women." For marriage based on this ideal, there is no reason for squeamishness concerning the brittleness or the looseness involved. If we are legislating for people of this class, there should be no objection to every man's having as many wives as he can maintain, erotically and economically, nor to every woman having as many husbands as she wishes. A systematic prearranged relationship or relationships prevents worry and is a social stabilizer. All attempts to restrict the number of mates and the changes of mates for such persons have been ineffectual in the past and are certain to be ineffectual in the future.

In spite of the considerable numbers of persons who seek in marriage only economic advantages and/or satisfaction of the desire for sexual intercourse, the human race, as a whole, has striven for a higher objective. The majority of individuals today are so striving, and the others may well be pitied as not knowing what they are missing. Human aspi-

rations, in this respect as in many others, were sung by the poets long before those who aspire to be scientists took up the problem.

It is not without significance that the poets and the seers of all cultures have proclaimed that in real marriage the twain become one flesh; it is not to be ignored that in many ancient cultures the symbols of perfection have been symbols of coitus. These sayings and symbols represent the possibility that a man and a woman may form a social organism in which each supplements the other and that in and through adaptation to each other each may attain a personal development far higher than can be attained individually, achieving thus a happiness above all other happiness.

It may be thought that we are indulging in poetry; we are not. But we are expressing a common sense for which there is plenty of scientific support. Many couples have achieved marriage of the sort described, and many others have approximated it. It is the possibility of this achievement, dimly visioned, which stirs the romantic love of the young man and the young woman, if they have not been vulgarized by the crass notions of their elders. The glimpses of the ideal that are vouchsafed us in our youth often are lost as we grow old, unless we have done something toward the realization of the ideal.

The psychologists, accordingly, are interested in assisting persons who have glimpsed the ideal to achieve it and in assisting those who have not glimpsed it to see it. We cannot drive persons toward an ideal by legal punishments. We are apt, indeed, by our legal machinations to make it more difficult for human beings to rise higher. The task of the psychologist with persons who have made messes of married lives is to convince them that their ignorance and their mistakes do not matter, provided they profit by their mistakes, learning to do better thereafter. It is his duty to point out to married persons who have failed in marriage how, and in

what respects, they have made fools of themselves and to encourage them to make improvements. Not all marriages that have gone on the rocks can be salvaged, and the salvage of some of these wrecks would be unfortunate; it is encouraging, however, to note that many persons who have failed in a first marriage make a success of a second.

As regards monogamy, the psychologist who has digested his experiences with marital maladjustment can take but one attitude. Monogamy is an ideal toward which the human race has long been striving; it is not a punishment inflicted upon us. Whatever your theories may be, you must recognize the fact that a man and woman who are happily married do not want to end the relationship. Permanence in marriage is an achievement, not a condition imposed from without. This fact should be taken into account in considering divorce and divorce laws.

B. Discrepancy in Ages of Mates. Everyone who has dealt with a large number of families knows that discrepancy in ages of mates may be a cause of marital maladjustment. Some studies statistically contrived show no correlation between age discrepancy and marital disharmony, but these studies should be ignored, because they have been made from data collected by the questionnaire method, which is usually productive of fallacious conclusions. Many persons to whom the questionnaires have been sent, or given, do not answer them; it is probable that these are the persons whose answers, if they had been obtained, would have upset the conclusions drawn from the data. On the other hand, the answers given by those who do respond need to be taken with more than the traditional grain of salt. Even in personal interviews, married persons who claim at first that their married lives are very successful ('lovely' is the term often used) may break down later and admit that their marital lives are doleful messes.

The magnitude of the age discrepancy is an important

matter and it matters whether the husband or the wife is the older. An age difference of fifteen years may not matter if the husband is the older, and some marriages in which the discrepancy is even greater have been successful. In any case, the success or nonsuccess of a marriage is determined by the standards applied to it; with low standards, a marriage may be judged to be successful, whereas the same marriage, by higher standards, would have to be considered a failure.

When the wife is older than her husband, a difference of ten years may be a serious matter, and a difference of even five years may cause trouble. If a woman of thirty marries a man of twenty-one, there will be no immediate trouble; but she will be forty-nine when her husband is forty—she will be beginning to age and to lose her attractiveness.

Two cases will illustrate the fact that the success of marriage is determined by the standards applied. In both cases the man married a woman at least twenty years older than he was. In one case, the wife had money and said that when she was about to die she would pick out a young woman for his second wife. She apparently did not make the pick, but at her death the husband inherited the money and married a younger woman in his own age group, who had social position. He then had both wealth and social status, and from that point of view his first marriage could be said to have been a success. In the second case, the wife was not wealthy, but had social position, so the marriage might be judged to be successful by the standard of social success. In this case also, the husband after his wife's death married a younger woman, although we never knew what she contributed.

C. Sacrifice for the Mate. Marriage, for most persons, involves the giving up of many things that they have enjoyed in single life. The married person gives up, to a certain extent, the freedom and independence that he pre-

viously had. There should be no illusion on this point. If the sacrifices are made freely and fully, in order to gain the greater benefits that life with the beloved one has to offer, the results are good. In true marriage one seeks primarily not one's own welfare, but the welfare of the mate, and gains his own satisfactions through the contributions to her welfare. In marriage it is especially true that "He that loseth his life shall find it, and he that findeth his life shall lose it."

If relinquishment is made unwillingly, it is not sacrifice but mere deprivation, which often is the beginning of the dissolution of marriage, but may complete the wrecking. Sacrifice, of course, must be mutual. If the wife makes all the sacrifices and the husband makes none, or if the converse occurs, marriage is a pitiful affair. Making sacrifices for your spouse should not mean making a doormat of yourself.

D. Working for Success. Expectations of results from marriage, whatever one's standards of success, must be bolstered by a determination to work for the objectives. Marriage, in fact, is not the end of a love affair, but the beginning of a job that often is not an easy job. Success in marriage depends really on learning; every person who marries has a vast amount to learn in adapting to the mate. There is no such thing as instinctive adaptation of mates to each other, but the adaptation is a learning process that takes time and work. If there is ever a pair predisposed by circumstances to fit each other, so that they glide easily into a happy marital union, the number of such couples certainly is small, and the chances that any pair will adapt to each other without planning, desiring, and working for the adjustment are negligible.

E. Economic Factors and Effects on Marriage. Poverty often produces marital disintegration. If a couple lives under a rigid economy, which excludes provision of all but the bare necessities of life, the scrimping and pinching and

the deprivations may produce worries and tensions, and the tensions of one mate react on the other. Poverty, on the other hand, may bind a couple closer together if their devotion is initially strong and their ideals high. Struggling together through poverty has made many marriages romantic and successful. In cases in which the deprivations due to poverty are resented, the resentment inevitably turns into resentment of the mate as being the major cause of the deprivations. Even with devoted love, high ideals, and willingness to make mutual sacrifices, poverty may have results that make adaptation difficult.

Poverty usually entails cramped living room; when the husband is at home, neither he nor the wife may have any privacy, no place to which either can withdraw to be by himself. This may be fun at first, but is apt eventually to produce tensions that are dangerous. In many cases, the husband leaving home in the morning for work is really escaping, and the wife heaves a sigh of relief when he leaves. The salvation of many couples comes from the husband's absence from home during the day.

Intimacy, including spatial intimacy, is desirable for a married pair, but this intimacy should be sought, not forced upon the pair. A young couple may choose to sleep in the same twin bed, but if their sleeping accommodations are limited to the one single bed, there will sooner or later be restiveness. Two persons who try to prepare for the day at the same time in a small bathroom annoy one another. Small bathrooms usually do not provide space in which two persons may park their belongings, and each thinks the other occupies too much of the space of cupboard and shelf. Every person needs a place in which to keep personal possessions, secure from being pawed over by other persons; absence of such provision breeds friction and tensions even between husband and wife.

Where cramped living quarters are necessitated by pov-

erty, the absence of the husband during the day may be a relief, but other problems are created. The husband has a sufficiency of social contacts with his business associates or his fellow workmen; but the wife, confined at home, becomes lonesome. When the husband comes home, she would like to go places and do things; but the husband may be tired, wanting rest. His idea of a pleasant evening may be reading a book, listening to the radio, and, in some cases, falling asleep in his chair. Limited finances have prevented the wife from engaging in social activities with other women, and the same economic factor may prevent the couple's going out in the evening even if the husband were willing. Sometimes the wife yearns for expensive entertainment, while the husband wishes to be more economical. The combination of a tired husband and a lonesome wife has been in many cases the entering wedge that eventually splits the two apart.

Financial contributions from the parental families of a young couple are sometimes helpful, sometimes not, depending on the conditions under which the contributions are made. If a stated stipend is assigned, and no accounting for its expenditure is required, the conditions are favorable. If the young couple must account for the expenditure of the money received, this amounts practically to supervision of the domestic affairs of the couple by the contributing parents, a practice that is always detrimental.

If the parents of one of the young couple have space in their house, there is temptation for the young couple to live with these parents, in order to save expense. The results of such doubling up in the early period of married life are almost always disastrous. After a few years of independent living, a young couple may live with the parents of one of the pair without danger. Marriage should entail the establishment of a separate household; if no household is established the prognosis is bad. Two couples who are not re-

lated to each other may live in the same household without damage to either pair, but relatives, especially fathers and mothers, always interfere. If the young people take the parents of one of the two into their own home, conditions are often satisfactory.

Under some conditions, both husband and wife may be employed and thus contribute jointly to living expenses. If husband and wife work on different shifts, or at different times, as when the wife does secretarial work by day and the husband is a night watchman, there is no real household established, no joint living. Such an arrangement in the early period of married life seems to be universally disastrous. Whether or not in a later phase of marriage, after a joint life has been established, such a plan would have disastrous results we do not know. In some cases the support of the husband by the wife has not prevented marital success, but this plan of marriage is not always successful.

F. Mental Privacy and Personal Lives. Opportunity for spatial privacy is but one feature of the privacy of life that is essential for mates if they are to build a satisfactory joint life. A joint life from which privacy is excluded may be satisfactory for a time, but for permanent adaptation each of the pair must be an independent person, whose personal life is adequately adjusted to the joint life.

Confiding in each other, communicating joys and sorrows, sharing topics of worry—such communication if not carried to an extreme is a normal feature of living together in the true sense. The fruits of this intimacy, however, turn to ashes if the communications are forced, produced by prying and spying, or are details in a mechanized habit of reporting.

For a wife to open her husband's letters, or vice versa, is a procedure so stupid as to need little denunciation. There are occasions on which mail may require prompt attention, and the wife may assume responsibility for opening a letter known to contain information that should be passed

on to the husband by telephone immediately, but such occasions are exceptional. In most cases, tampering with a mate's letters is merely prying due to an indecent curiosity. This reminds us of Mark Twain, who opened a letter addressed to his wife, and wrote on the envelope, "Opened by mistake to see what was in it." If a wife suspects that a letter addressed to her husband was written by another woman, it is foolish for her to open it. Letters opened by the mate to whom they are addressed and left lying around should be equally inviolate. Matters that may be of interest to both mates should be communicated by the one primarily concerned, and not pried into. Some wives are tempted especially to open letters coming from members of the husband's family, a temptation that should be withstood. Often remarks written by a parent, brother, or sister are built up into sources of resentment, however harmless may have been the intention of the relative.

Some couples develop the habit of reporting to each other in detail the day's activities. This becomes mechanical and if either omits some detail, and the omission should be discovered later, suspicion is aroused. Husband and wife should communicate to each other matters of common interest, but many matters should remain private. If a husband reports to his wife all the petty annoyances at his place of work, and minor slights and injustices, these may be magnified by the wife into major matters, and their premature discussion may make their handling by the husband more difficult. A husband should not unload on his wife the routine difficulties encountered in his working life until the difficulties have been resolved. In colleges and universities much needless friction is caused by the husband's discussing with his wife the personal and professional relations with his colleagues. This source of friction is greatest where faculty families live in communities in which they are in intimate contact, especially where they live on the campus.

The wife also should avoid unloading her minor troubles on her husband. The details of household management are usually her problem primarily, and she should shoulder them. These principles, of course, do not preclude either mate's seeking advice from the other on matters in which the other is competent. Wives often are sound advisers on business matters, and husbands are sometimes able to give good advice on household affairs. One woman, for example, who is a cook of superior ability, admits that her husband taught her all she knows about cookery. In most details, however, each mate should assume responsibility for his or her problems and should not inflict them on the other. Constant tattling about annoyances and problems that should be assumed as personal responsibilities may or may not have a direct result in disturbing the adaptation of husband and wife, but it is apt to interfere with success in social, professional, and business life; and this interference is sure to have repercussions on the adaptation of the mates to each other.

A circle of common friends and associates is essential for the success of the joint married life. Even a poverty-stricken pair can provide for themselves a social life that will help to avoid the lonesome-wife-and-tired-husband situation to which I have referred. It is important, nevertheless, that each mate shall have a circle of friends of his and her own sex, who are not necessarily friends of the other mate.

For a wife to expect her husband to accept as his friends all of her friends, and for a husband to inflict all of his pals on his wife, is procedure on principles that are fundamentally unsound. To require a husband to give up a friend whom the wife does not like, or to require a wife to give up a friend whom the husband dislikes, is an equally serious error. On the other hand, friends of either mate who are disadvantageous may be indicated as such; information

possessed by one mate about friends of the other may be communicated if it is not mere 'gossip,' and advice to drop disadvantageous friends may be given, but this should be advice, not requirement or orders.

Closely connected with unwarranted invasion of a mate's personal life is the habit of discussing points of disagreement at great length, and the habit of reverting later to points that had been discussed to a sufficient extent. A matter that has once been ventilated should be dropped permanently. Having given your opinion, briefly, you should leave the topic to the other person for his consideration. Argument never convinces anyone, but tends rather to make your opponent more obstinate; argument also inserts a wedge between husband and wife or drives deeper wedges already inserted. "Words, fitly spoken, are like apples of gold in pictures of silver," but too much talk has wrecked many families.

G. Parental Interference. We have pointed out that, if a couple attempts to live with the parents of one of the mates, the results of the living arrangements are almost always bad. While this combination of two generations in the same household can be successful, it seldom is. If the parents of the bride or groom live in the neighborhood of the young couple there is danger, unless the parents are unusually smart. If the homes of the parents of both husband and wife are within easy walking distance of the home of the young couple, the cards are so stacked against them that we have never seen a marriage succeed under such conditions. It may have been possible a generation or two ago, but it is not possible now.

If the bride can drop in on her mother at any time, the temptation is to tell the mother all her petty troubles, as they occur. Minor frictions with her spouse are magnified by the mother and made into permanent bones of contention. Some mothers are smart enough to discourage this sort of

tattling, but usually the real affection of the mother for her child, and her concern for her, blinds the mother's eyes to the danger. Some young husbands also have a pernicious tendency to tattle to mothers to whom they are attached. If both husband and wife run to their mammas at the slightest provocation, the prognosis for the marriage is extremely bad.

Fathers, for some reason that is not entirely clear, are less apt to interfere in their children's marital affairs than are mothers. Perhaps the reason is that if a father has been really domineering the child has become 'fed up' with his bossiness before marriage and refuses to be dominated thereafter. Mothers are more subtle, especially if they are smart women, and dominate their children in ways that are less obvious. Too often a mother keeps her son or her daughter a child in relation to herself into adult life and refuses to give up her domination when the child marries; by making demands that an affectionate child cannot well refuse, she interferes with marital adaptation of the child to the mate.

When a son or a daughter marries, parents should keep their hands off; they should stand ready to give aid only when aid can be given without domination or interference. It would be well if every young couple could establish themselves in a place at least a thousand miles away from both parental families, but this is seldom possible. If, however, newly married persons are firm in their purpose to run their own show, keeping their mouths shut about minor matters in talking to their relatives, they may make out well in spite of nearness to their parental families. The aphorism "too much talk has wrecked many families" applies to this situation as well as to the situation of the mates in direct relation to each other. When you marry, use your head (and your 'visceral organs'); insist on working out your problems of adaptation without family interference.

Most families will accept this attitude as reasonable, if you have the 'viscera' to break your childhood ties and insist that your marital problems are your own.

Advice may be needed by a young couple, but should be sought only when it is needed. A disinterested person is the best adviser; and parents, grandparents, uncles, and aunts usually are not disinterested. The best adviser is one who has had practical experience in the matters concerning which advice is needed. In some cases a relative may be competent and disinterested; but parental relatives often try to dominate the couple, telling them how to manage their household, their finances, and their relations with each other. Pastors and family doctors are likely to be both experienced and disinterested, if they are of the old-fashioned sort, and may make the best consultants, especially in small communities.

H. Cultural Differences. The word 'cultural' has broad implications. 'Culture' includes the whole complex of social standards, ideals, training, and ways of life, that a group develops over a period of generations. The culture of the United States is superficially the same throughout the Union, but actually there are a number of different cultures included. The culture of the Rocky Mountain states is discernibly different from that of the Atlantic coast and that of the Pacific coast. We speak of the 'Southern attitude' and the 'Southern way of life,' but the culture of the South Atlantic seaboard is really more like that of New England than it is like that of Tennessee or Missouri. These geographical differences in culture, however, are not those of the greatest importance.

Different racial groups in the same areas have different cultures, but these differences are not related intrinsically to the racial differences. The cultures have been developed in the original homelands of the racial stocks and have been transferred to America and maintained here. Italian-Amer-

icans, German-Americans, and Scandinavian-Americans have different cultures, although amalgamation has progressed more rapidly than was deemed possible fifty years ago. Many marriages between persons of these different cultures have been highly successful, but in some cases marriage of persons of different culture groups have failed for this cause alone. If two persons whose cultural backgrounds are different can cut loose from their families and other associates and establish themselves in a new community, where they can adapt to the community culture, there is not much difficulty, if the couple is otherwise adaptable.

Differences in religion are not important except insofar as the religious differences involve cultural differences. Protestant Christians of different sects have married successfully, but the marriage of a Protestant to a Roman Catholic, or of a Christian to a Jew, is sometimes troublesome, because the cultures associated with these religions are different. Two solutions for the Protestant-Catholic problem have been tried, one of which is more or less satisfactory. One of the pair may become a convert to the religion of the other, and that solves the problem. The alternative is for the Protestant to sign away control of the children which may be born, turning their control as regards the religion in which they will be trained over to the Catholic Church. This is never a happy solution of the problem, since it makes the Protestant mate a mere paramour, which does not promote success in marriage. If a Catholic is willing to be married by a civil ceremony, the marriage to a Protestant has a good chance of succeeding, and further problems can be solved as they arise.

Some marriages between Christians and Jews have worked out very well, while some have not been successful. The difficulty, of course, is not theological, but lies in the cultural features. The ways of life are different, and one of the mates must adapt to the culture of the other. The difficulty

is lessened if the couple begin their married life in a new social environment, away from parental families and cultural associates. One of the finest marriages I have known was the union of a Jewish girl with a gentile boy. When they married, both families repudiated them; this made it possible for them to develop a life of their own, free from the influence of both families and from the cultural associations of their earlier lives.

Differences in racial stock are of no consequence in themselves, but cultural differences associated with the stocks may be sources of disintegration. In Hawaii, intermarriage of Chinese and Europeans has been notably successful, but Hawaii was a new country, in which neither the Chinese nor the European culture predominated. On the other hand, most occidental women who have married Chinese men and have lived in China under traditional cultural conditions have been very unhappy, although some have adapted themselves to the Chinese culture. There is no reason why Chinese of American birth and culture should not marry persons of European stocks. In the case of Japanese results may be different, not on account of racial factors as such, but because the Japanese culture is so different from ours and is not easily changed.

The group in which a married couple lives has a paramount influence for good or ill on the married life of the pair. In considering marriage with someone you have not known from early youth, this factor must be considered. Ask yourself these questions: If I marry this person, what sort of people will we have for friends and associates? If our friends will be of a culture different from that in which I have been reared, can I adapt myself to it? Do I really know to what I will have to adapt?

Differences in educational level may or may not be important. If the mates differ in formal education, the difference is unimportant unless the mate who has had the

lesser schooling resents the superior education of the other, or the latter looks down on the former as being an inferior. This overemphasis of the value of formal schooling sometimes occurs when the wife has a college education and the husband has not. If the difference is on a practical basis, if one of the mates has absorbed the common culture to a lesser degree than has the other, the difference becomes a real cultural one and is a potential source of marital disharmony.

I. Differences in Tastes and Interests. Two persons who have been nurtured in the same culture may differ from each other in tastes and in topics of interest. Agreement in religion and in politics does not preclude differences of interest. A wife, for example, may adore highbrow music, but her husband is bored by Bach, bedeviled by Beethoven, and detests Debussy, preferring Jerry Colonna and Spike Jones. The wife is a bridge enthusiast, but the husband will play only rummy and poker. The husband reads and enjoys biography and historical novels, while the wife's demands are for mystery and murder stories. The husband is a golf addict, while the wife loathes 'cow-pasture pool.' He drinks beer, while she prefers sweet wines. The list of divergent tastes is endless.

Such differences may be made causes of marital disintegration, but need not be. Individual interests are important features in the private lives, which are necessary foundations for satisfactory joint living. Differences in interests are useful; the damage is done when one mate attempts to impose his or her interests on the other mate. If a wife insists on haling her husband to symphony concerts 'with his ears laid back and dragging at the halter,' she is stupid. If a husband drags any uninterested wife onto the golf links, he is equally stupid. These stupidities, not the differences in tastes, are wreckers of marital adjustment.

A mate, however, must take a reasonable interest in that

which interests the other. The wife should not have imposed on her the detailed account of a golf game, which a golf addict loves to broadcast, but she should be interested in hearing with whom he played and should make it evident that she approves of his playing. It is possible for a husband to promote his wife's interests in highbrow music and bridge without his having to sit and suffer through symphony concerts and bridge séances. Active participation in the activities of a spouse may be advisable at times, but is not always necessary. When each recognizes that the other has personal interests and that such interests are desirable, the personal interests can be made contributory to joint living. Two conditions are essential: first, each mate must take interest in the activities that interest the other; second, neither mate should take unfair advantage of the interest displayed by the other.

A province of common interests and common activities must be provided for married life; the best foundation for this is relief from needless participation in the interests of the mate and avoidance of the attempt to impose one's own interest on the mate.

3. *Erotic Features of Married Life*

There are two complaints commonly made by married women. They are variously formulated by various women, but the general sense is as follows: (a) My husband doesn't make love to me except in bed. (b) My husband doesn't make love to me even in bed; he wants just one thing and is in a hurry about it. This second complaint describes a husband whose idea of coitus is practically rape. There are two sides to the first complaint, and we may consider first the woman's side of the case.

A normal woman, if in love with a man, wants lovemaking, not merely as a preliminary to coitus, but in her daily life. A little petting now and then is appreciated by almost

all women. Holding her hand, an affectionate pat, a hug and a squeeze, all have their places. Words of endearment, spoken at appropriate times, are important to all women. These actions are but embodiments of something that can be expressed in endless ways, some of which are more subtle than is the petting process. Expression that is adequate for one person is not always adequate for another. The important thing is the sentiment conveyed; if there is desire to convey the sentiment, means of expression are easily found to suit the circumstances.

Many women who in the beginning of married life are fondly attached to their husbands go through years of marital life with no lovemaking, and some of them eventually give up in despair. Some of these disappointed wives make excellent prey for seducers, who offer them what their husbands do not. The majority, of course, remain physically constant, but they can protect themselves only by eliminating the yearning, so they cease to care for their husbands.

Some husbands refrain from making love to their wives because they have no real affection to express; not loving their wives, they cannot make love to them. In such a case, the only honest course to pursue is to make the situation clear and obtain divorce before further damage is done.

There is something to be said on the man's side of the case. Women are apt to put too much emphasis on verbal formulations, while men of the right sort are not glib in such formulations. Many men who have real affection to express are embarrassed when they attempt to express it in words. Wives often make the mistake of demanding expression. The bride asks her new husband, "Do you love me?" "How much do you love me?" "Do you love me as much as you did yesterday?" Someone should kick such brides in the pants, for nothing destroys love more effec-

tively than does demand for its expression. That which is expressed on demand has the effect of negative practice.

Any woman will admit that she does not want routine expressions of affection, either verbal or of other routine types. Yet the same woman may make demands that lead to routine. We know that the routine good-by kiss and routine words such as 'darling' or 'dear' become meaningless; many a wife, if she reviews the early years of her married life, will see that she herself has brought these routines about. She had wanted spontaneous expression, not routine; but that which is demanded cannot be spontaneous.

As for caressing in lovemaking, a man who is in love with a woman becomes excited through caressing her, and there is often a genital response, which may be inconvenient. Caressing also leads to desire for coitus, and that desire often is inconvenient. An excitable husband accordingly may avoid caressing his wife in daily life to avoid the undesirable results.

The husbands against whom the second complaint is directed fall in two classes. Some apparently have no affection for their wives and may even dislike them as persons. In such a case the 'wife' is merely a legalized prostitute. Some husbands who rape their wives are merely unintelligent, but the results are the same as for the first class, so far as the woman is concerned. It has been said that every woman appreciates being raped occasionally; but it is certain that no woman appreciates it as a regular procedure. It is safe to say that no woman subjected to such treatment retains her affection for her husband very long, except those who become frigid. There is, indeed, no way in which a woman treated in that way could avoid becoming neurotic and retain some affection for her husband except by becoming frigid.

Some frigid wives have expressed themselves as attached

to their husbands, and as being glad to accommodate them in coitus in much the same spirit as that in which they are glad to darn the husband's socks. This remnant of attachment, devoid of erotic features, seems to have been retained through becoming frigid.

The results of neglecting lovemaking as a preliminary to coitus in the early period of marriage have been discussed. Frigidity and neurosis are the alternative results. Women vary in erotic and genital stimulability more than men do, ranging from those who need practically no preliminary stimulation to make them ready for coitus, to those who require a large amount of lovemaking as a preliminary. For the great majority of women, however, some preparation in the form of lovemaking is essential. The inflammability that causes the average man to respond so easily is not a characteristic of the average woman.

On the other hand, no mechanical technique of stimulation takes the place of real lovemaking. No procedure can sensibly be prescribed. The only sound advice that can be given to a man is: Consider your wife as primarily a person to whom you are making advances; don't consider her a mere adjunct to a genital organ. On that basis, go ahead and do whatever seems suitable; do whatever you feel like doing, and don't let any aesthetic scruples interfere.

To the wife we would say: Don't get the impression that the female role in coitus is merely a passive one. Some women succeed in that way, but for the majority activity is requisite. What sort of activity? Experiment and find out. No prescription can be given to fit all cases. It is obvious that for most human beings satisfactory coitus is the result of a learning process, as is almost every response pattern in human life.

The excitement of the male caused by lovemaking has its effects in the early period of marriage. Being highly excited, the husband attains the climax quickly, thus leaving

the young wife unsatisfied. This condition is unfortunate, but is not permanent unless it is accepted as permanent. With repeated coitus the excitability of the male lessens, and a more normal relationship becomes possible. One advantage of the honeymoon lies in this point. During the honeymoon there need be no fear of overindulgence. Repeated coitus during the same night is advantageous, since the excitability of the wife may increase with repetition as the excitability of the husband decreases. A honeymoon in which there is no restraint is invaluable for the furthering of marital harmony and adjustment. For many women it is essential for the development of the essential genital response. Premarital experience does not serve this purpose, but makes marital adjustment more difficult for most women. It does not serve the purpose for men either. No man can learn about *a woman* from *women*, and marriage requires for its success adjustment of a man to a particular woman; this is true of adjustment in coitus as it is of any other feature of married life.

Some men who admit that in their married lives they have let down in the lovemaking that they practiced before marriage defend themselves by claiming that they are expressing their affection in a different way. Working, in order to provide for the wife's support, absorbs a large share of a husband's time and is a way of expressing his affection. There is something in this excuse, and wives ought to know that a husband may be expressing real affection in a way different from the expression during courtship. On the other hand, the excuse is usually overworked. Sometimes the husband really means what one husband expressed by saying, "Well, you don't run for a streetcar after you have caught it." What many a husband needs to do is to add to his relations with his wife some of the graces that he knew were necessary when he was courting her. This

makes the wife happier, and if that does not increase his happiness, directly and indirectly, he is a hopeless case.

4. *Immodesty and Modesty in Marriage*

Sexual modesty is a feature of cultures that have become complex and is in any culture a relative matter. In savage cultures, there might appear to be no sexual modesty, but the appearance would be misleading in most cases. The superficial appearance of absence of modesty in uncivilized cultures is due to the fact that in those cultures modesty is not connected with clothing, but is a matter of behavior.

In Western civilization, and to some extent in oriental cultures, modesty is in part a matter of concealing certain areas of the body from the sight of other persons. The areas to be concealed, and the rules of concealment, have varied from place to place and from generation to generation.

One generation ago, women in the United States were required to conceal all body areas except the face. In the Levantine regions, on the other hand, the face was the part that a woman was most careful to conceal. It has been remarked by Burton and others that whereas in the Western lands a woman surprised when naked, as in bathing, would be apt impulsively to use her hands to conceal her genitalia, as the statue of the Venus de' Medici is represented as doing, a Turkish or Arabian woman in a similar situation would employ her hands to cover her face.

A century or two ago, exposure of the female body in western Europe was less shocking than it became in the nineteenth century. In eastern Europe, carelessness in female exposure persisted down at least to the nineteenth century.

Concealment and exposure of the male body, a generation or two ago, were not considered by Americans to be so important as were concealment and exposure of the female,

yet there was some regulation of the males. The wearing by athletes of short 'running pants' was protested, and some groups insisted on a type of running pants that extended below the athlete's knees, the 'Y.M.C.A. track pants.'

When women began to wear skirts short enough to reveal their ankles there was great alarm on the part of the clergy, legislatures, city councils, and some editors. Ordinances were passed in some cities prohibiting the wearing of slit skirts, and the wearing of knee-length skirts produced a furor of denunciation and legislation. If a woman had worn shorts in public even twenty-five years ago, she would have been arrested 'pronto.' Even today there are in some municipalities ordinances prohibiting the wearing of shorts and bathing suits on the streets.

The change from the old-fashioned bathing suits for women, with their bloomers and skirts, was violently opposed. Ordinances were passed which regulated the maximal distance of the hem of the bathing skirt from the ground, and beach police made arrests for wearing bathing suits that today would be considered as prudish. Why these tempests in teapots?

From the point of view of aesthetics, there are reasons why the bodies of most persons should be concealed. Inspect any crowd on a beach, and you will be convinced that some persons ought to be compelled to wear garments that give full coverage. Under a licensing system different degrees of exposure might be permitted. A small percentage of the women might be permitted to wear as little as they please, but few men should be allowed that license.

Things do not work out that way. Whatever exposure is adopted by beautiful women and handsome young men is adopted also by the old, the fat, and the skinny. Exposure of commendable legs, of which there are a few, involves exposure also of legs that are bowed, knock-kneed, Steinway grand, and pipestem. One might assume that beauty has

nothing to do with the struggle over clothing and nudity, but the assumption would be wrong.

The struggle during the past thirty years was between the group of young and beautiful women and the older and less pulchritudinous group. The fulminations against short skirts, shorts, etc., could be called the attempt of the 'Women's Union' to abate the fierce competition by reducing all women to a common level. Concealment of beautiful legs, for example, reduces them to the level of ugly legs, which also were concealed in the older period.

The rise of nudism should have thrown some light on the problem, but nudism has been so fiercely attacked that it has not had a normal development. Nudists are mostly persons whose desires and tendencies have been so much thwarted that they achieve a certain independence and 'feeling of freedom' by the simple process of discarding their clothes. This is a symbol of freedom, but symbols often pass for that which they symbolize. Why nudists should not be permitted to be as nude as they please, so long as their nudity is not inflicted on persons who do not wish to see it, seems a question to which there could be but one answer; but restrictive laws have been enacted against nudists, who wish merely to be left alone in their private camps.

Undoubtedly, the antagonists of the nudists also are persons who have been thwarted and who do not propose to let others have even the symbol of freedom if they do not wish to utilize it for themselves.

Psychologists have long known that there is no essential connection of morality or immorality with the amount of clothing worn or not worn. The principle involved needs explication and qualification. The principle is that when an area of the body that has been conventionally concealed is exposed, it has erotic value for the opposite sex. On the other hand, if exposure becomes conventional, the area exposed shortly loses its erotic stimulating effect. There is

a third feature of the principle, namely, where exposure has become conventional, concealment has a salacious effect. Among the ancient nomads of the Near East, whose social life is well described in the tales collected in the Pentateuch, most women apparently had more freedom of exposure than in somewhat later periods, and the livery of a harlot was a garment that completely concealed her. The effect of such concealment on the male is indicated by the story of Abraham and his daughter-in-law, who disguised herself as a harlot.

Exposure of areas of the female body to the gaze of males, when it becomes conventional, causes the exposure to cease to be erotically stimulating. Removal of conventional covering, of course, produces erotic stimulation. This is a matter of no slight importance in the relations of husband and wife. I warn young women that if they wish to retain their allure for their husbands they should have regard for sexual modesty. There are times when modesty should be cast to the winds, when any modesty is prudishness, but there are also other times.

The young wife who concludes that now that she is married she need not conceal her body or any part of it from the view of her husband is quite wrong. Make a practice of parading before your husband 'in the raw,' and it will, for a time, make him amorous. Eventually, he will become accustomed to the stimulation, and his excitability will be blunted. He may, indeed, become interested in some other woman, whose charms are suggested but not flaunted before him.

Be practical. Dishabilles that are sufficiently concealing are also alluring and should be worn religiously by a bride and throughout her later married life. The allure is increased when the dishabille is slipped off. If a husband seeks his wife's physical charms, instead of having them

forced upon him, the chances that their attraction will be lasting are greatly increased.

5. *Extramarital Relations and Confession*

No man, however happily he may be married, can safely assume that he will not have a sudden desire for a woman other than his wife. Neither can a woman assume that she will not at some time have a desire for a man other than her husband. Such things happen to the best of normal people and should not be sources of shame or horror. There are, of course, persons to whom such things do not happen, but no person can count on immunity.

In most cases the attraction is recognized as erotic, although adultery may not be contemplated; few persons fool themselves to believe that in such a case it is a matter merely of 'intellectual friendship.' The matter of real importance is what is done about the situation. The erotic yearnings of people who are successfully married are usually temporary and have no serious effects. If the erotic episode eventuates in adultery, the results may be more serious, but even so, a little common sense may save the marriage. Many wives seem to be in constant fear of 'another woman,' but this fear usually is groundless unless there has been a rift in marital relations before the other woman appears in the case. I am inclined to think that if a man has once been deeply attached to a woman and has had satisfactory erotic relations with her for a considerable period of time, no other woman can take him away from her. In most cases, either there has been no real adaptation of husband and wife, or else the wife had released the husband before the other woman grabbed him.

Erotic attachments, even if they stop short of adultery, may be made causes of separation by discussing the situation. A wife who suspects her husband of infidelity may accuse him and question him about it, and this is a sure

way to alienate him. In cases in which the extramarital attachment would have been of brief duration, and the erring one would have been more deeply attached to the mate than before, accusations and cross-examination may prevent recovery. My advice to a wife who suspects her husband is always preceded by a question: Do you want to keep your husband if possible? Or would you like to get rid of him? If the answer to the first question is in the affirmative, our advice is that she should say nothing, and should seem to notice nothing. If the affirmative answer is to the second question, she is told that she has a good chance to break off the marriage by accusing her husband and subjecting him to cross-examination.

In some cases, the husband's passion for the 'other woman' causes remorse, and he feels that he should confess to his wife and secure her forgiveness. The results are much the same as if the wife had accused him. Even if the wife has known about the affair, as a wife usually does, bringing it into the open and discussing it changes the situation. If confession of delinquencies is ever useful, it is after the whole situation has cleared up, and the matter can be discussed without emotional stress.

Some young husbands insist on confessing to their brides their illicit premarital affairs. Such confessing usually is boasting. Such men are poor marital risks. The man who tells about his affairs with women has been known as a 'cad' or by worse names. If he is ruthless concerning other women who have served his purpose, he will be ruthless in regard to the one he marries.

Sometimes a bride, after her new husband has confessed (or boasted), thinks that she too should be frank and confesses that she has had an 'affair' with another man. This might be assumed to make the situation fifty-fifty, but it doesn't. Perhaps there are men who are really broad-minded and do not let the confession change their attitudes,

but most men who profess to be broad-minded are tolerant only of the erotic delinquencies of wives of other men, not broad-minded when their own wives are concerned. In a great many cases of this kind the husband has deserted his bride immediately after her confession.

In some cases the bride's confession is motivated by the fear that her premarital affair will come to her husband's ears by some other channel, and she attempts to forestall this catastrophe by confessing, but the confession does not help. Every smart girl knows that any liberties she allows to a man who is not really in love with her will be broadcast sooner or later. He may keep it dark for a time, to prevent competition; but when he tires of her he will 'pass her along.' In some fraternities and other groups of men, girls are pretty well catalogued in respect to how far each will 'let a fellow go.'

6. *'Free' Marriages*

Some couples on or before marrying enter into agreement that each shall be free to select casual bedmates. How do these marriages with cold-blooded provisions for adultery work out? While any conclusions from known cases may be suspected of involving the 'pathologist's fallacy'—that is, that the conclusions are drawn from cases that have not worked well, in ignorance of cases that may have attained success—the 'bust-ups' that have happened do seem to follow lines that would be predicted by any psychologist with a knowledge of men and women and their reactions under present cultural conditions.

Three cases are typical. One is that of a man who posed as a philosopher and his three wives. With his second wife he made the mutual adultery agreement, and both seem to have proceeded in accordance with the agreement. The wife had at least two children whose father she believed to have been a man other than her legal husband, and

adultery with still other men is presumed to have occurred. That the husband put the agreement into practice seems to have been admitted. Here would seem to be an excellent business arrangement for a man and a woman, giving each the freedom of an alley cat while protecting them against legal and economic entanglements. For the wife, worry about pregnancy is eased, since the husband agrees to assume responsibility for her children. The husband also is protected, for, since he is married, no other woman can expect him to give protection or support to her or to her children.

A somewhat similar protection occurs in marriages in which the husband is promiscuously adulterous, but will neither seek a divorce nor agree to a divorce, since as an unattached male he would be in danger of being married by one of his other women, while the wife is a protection if a *modus vivendi* with her is achieved. This, of course, is one-way protection, while the mutual adultery agreement protects both members of the pair. Such an arrangement has been described in vulgar analogy as "license to indulge in attractive meals away from home while having a sandwich in reserve in the kitchen."

In the case of the alleged philosopher, the wife eventually obtained a divorce. This termination of a marriage that was supposed to be working so well was a surprise to us. Later we found out that the wife's disaffection was produced by the husband's bringing one of his other women home to live in the same house with the wife, which was too much for the wife to stand. (This stupid dolt had the temerity to give advice on marriage problems.)

In the second case, we do not know with what agreement the couple began their married life, but when we knew them they were living under the mutual adultery agreement. It seemed clear that the situation was harassing to the husband, and I am convinced that his death in an automobile

accident was brought about by a neurotic condition promoted by some years of the disturbing condition. He would have been quite content to be adulterous himself; but his intellectual honesty impelled him to make it a fifty-fifty agreement, which was never 'emotionally' acceptable to him. The erotic interest of the pair in each other was slight. The mutual adultery agreement seems to inhibit such erotic desire as mates might otherwise have toward each other.

The third typical case is that of a pair who married with the mutual adultery agreement at the insistence of the man. The woman did not approve the idea, but, since she had decided to marry him and knew that he would be, in any case, as adulterous as opportunities permitted, she accepted the bargain nominally, but never availed herself of the liberty permitted. The husband apparently felt guilty at times concerning his adulteries and urged her to do likewise. Putting the liberties on an actual fifty-fifty basis would, presumably, restore his self-esteem and cause him less embarrassment in asking for sexual intercourse with his wife.

At last the wife decided to put the husband to the test and went out with another man, staying away from home long enough to arouse suspicion. She refused to tell what happened, although the husband kept quizzing her, and he became progressively more hysterical over her refusal to admit or deny. Finally, the husband, taking her obduracy as a confession of guilt, became frantic and attempted to kill her. The real desire of the husband, of course, was not for equal freedom to commit adultery, but for exclusive possession of his wife, with freedom adultery for himself.

7. The Effects of Children on Marriage

In modern civilization, the primary purpose of marriage, as we have explained, is the provision for a man and a

woman of the means of continuous association in a relationship in which the two form an integrated social group through which alone can the highest happiness and the best personal development be obtained. In ancient times, the primary purpose of marriage seems to have been reproduction; but today few couples, if any, marry for the purpose of begetting children. Most pairs, however, look forward to children as desirable results of marriage, constituting additional bonds between the mates. This effect is actually produced in many families, but not in all.

Reasons for not wanting children are often of the economic order. Provision for an enlarged family, especially in the first years of married life, may be difficult. Sometimes the young wife is willing to make the sacrifices necessitated by the cost of a child, but the husband is unwilling. This vetoing by the husband of the wife's wishes is sometimes based on his sounder estimation of the financial situation, but in some cases it is due to his unwillingness to give up liberties and comforts for the sake of the child.

Some wives are unwilling to have a child although the husband favors the step, and financial obstacles are not serious. The wife may foresee the eventuality of giving up, or seriously reducing, her social activities or her amusements, but in some cases she fears the loss of her figure, through development of a 'matronly' build. While it is true that lack of expert attention in, and subsequent to, childbirth, may produce anatomical changes that result in the woman's loss of figure and loss of health, there is no danger of these changes if the obstetrical care is adequate. A woman will lose her virginal figure in time, whether she has children or not, but the married woman who has two or three children will have a better figure in middle age than will the childless woman.

It might be supposed that women would be disinclined to reproduce by reason of the pain that is inevitable in child-

birth. Some young women who in girlhood have been frightened by the tales of older women do indeed lean on this support for their disinclination to have babies, but the number who are actually motivated in this way is not great. Women who want babies are willing to pay the price, and the price of physical pain is a minor deterrent.

Childbirth at an early age of the woman has advantages for the woman and the child. The older the woman is at her first parturition, the more difficult and prolonged is the labor period and the greater is the chance of damage to the mother and the baby. If every woman had her first baby between the ages of eighteen and twenty, there would be little excuse for the old wives' tales that do frighten some girls. On the other hand, it would be an excellent thing if every young man were required before his marriage to witness the delivery of a baby in an obstetrical ward.

Whether or not a pair want children, the advent of a child before the parents are ready for the responsibility, or the advent of another child too soon after the last one, often upsets the household and causes estrangement of husband and wife. It may be claimed that if a child causes estrangement there has not been a good adaptation of the mates to each other. There are, however, so many possible obstacles to marital adaptation that the addition of another disturbing factor may prevent the adaptation that would otherwise have developed. Planning for the birth of a child is therefore a matter of great importance.

8. *Divorce*

The legal assumptions concerning divorce vary widely throughout the United States. At one extreme is the system of South Carolina, where marriage is theoretically unbreakable, and at the other extreme is the brittle system of Nevada. The divorce laws of California are liberal and prob-

ably represent the mean for the nation. Divorce here can be obtained by almost anyone who really wants divorce.

For persons of the upper economic levels, the laws of particular states have little restrictive effect on divorce, since there are ways of evading state laws. One of these ways is to obtain a divorce in a state other than that in which the applicant resides. This evasion has been building up a situation that is potentially dangerous. Many couples have obtained divorces and thereafter remarried under such conditions that their marital status is stable only because their affairs have not been brought before the courts of their home states. In case of inheritance of property, the children of the remarriage are in danger of being declared illegitimate.

The number of cases of remarriages that are not recognized as legal in home states increases year by year and can have only one of two results. Either legal marriage will be given less and less regard, or divorce laws will be liberalized in all states. So far, the advocates of uniform divorce laws appear to have had the purpose of making divorce laws more stringent in states in which they are at present liberal. The practical aspect of the problem seems to have been little recognized.

Another way of evading the divorce laws is by the obtaining of spurious evidence to fit the requirements of state laws. In New York, divorces are granted on few grounds, among which is adultery. The laws are evaded by trumping up evidence of adultery. For a price a commercial agency will obtain such evidence. The technique involves the reservation of a hotel room in the name of the customer 'and wife.' At the appointed time the man goes to the hotel and is met by a female employee of the agency. The two go to the room after registration, and, shortly after they enter the room, witnesses and a photographer appear and obtain proof acceptable in court that they have not only registered as husband and wife, but actually occupied a bedroom to-

gether. The man need not even speak to the woman, but legal evidence of adultery has been secured. This form of bootlegging of divorce is an illustration of the practical results of stringent divorce laws. In other states, where the laws are more liberal, perjury in divorce applications is often necessary. The real reasons for divorce are seldom the reasons advanced in the application to the court.

Divorce is a process that is analogous to a surgical operation—an operation that may be necessary in pathological cases, but that we hope will be unnecessary in most cases and, in especial, unnecessary in our own cases. No one can predict with certainty that his marriage will be a success, that it will not disintegrate to the point at which divorce is the only solution. One does not, however, include divorce in his plans for marriage. No one can predict that he will not have appendicitis, and one is prepared to have the appendix removed if it becomes necessary, but one does not plan a course of life that leads to appendectomy. Removal of an injured leg may be necessary, but we would not attribute much intelligence to a person who should deliberately incur risk of having his leg crushed with the thought: "Oh, well, if my leg is damaged I can have it cut off." Similarly, one who marries with the idea, "If it doesn't turn out well I can get a divorce," is not very smart. That sort of planning reduces the chance of marital success to about that of the traditional 'snowball in hell.'

The purpose to make marriage permanent if possible is analogous to the purpose to make life enduring and to avoid disease and accident, while accepting divorce as a curative measure for cases that require the operation. Our provisions for divorce, however, are not on the same scientific basis as are our provisions for surgery. We provide trained surgeons and hospitals in which operations can be performed with adequate prophylaxis against infection and with proper

care for convalescents, but our divorce laws are antiquated and, metaphorically speaking, insanitary.

In considering the improvement of divorce procedure, we must give some attention to divorce laws, which correspond to the principles of surgery, but in all features of our consideration we need to be practical. We must find out the needs of human beings, and then we can consider the means of filling the needs.

There are several points on which divorce laws throughout the United States have been inadequately drawn. In some foreign countries, better laws have been enacted, and some states in our nation have better laws than do others; but nowhere are divorce laws adequate for the promotion of human welfare.

A. Divorce laws in general establish certain grounds for divorce which are not representative of the actual causes of marital maladjustment. As a result, the grounds alleged in applications for divorce are seldom the real grounds. Since legal grounds must be offered, the situation often goes beyond mere misrepresentation and involves perjury. Judges of divorce courts well know the situation, but nothing is done about it.

This situation, as we have pointed out, is acute in states in which there are few legal grounds for divorce and bootleg divorces are promoted. Adultery is sometimes an actual cause of divorce but is more often a result of the marital disintegration. Where adultery is the actual ground it is not apt to be offered in the complaint, for few husbands or wives are willing to make this charge unless the marital disharmony has reached the point of hatred. We know of cases in which an applicant for divorce has alleged adultery and produced a scandal that injured the defendant, in order to satisfy a deep hatred. More often, however, the real fact of adultery is camouflaged under something else, if the state laws admit other grounds.

B. Our divorce laws tend to admit no grounds for divorce except those which indicate that marital maladjustment has reached an acute stage. Wife beating, husband shooting, nonsupport, desertion, and adultery represent family disorder in acute stages. No unsuccessful marriage should be allowed to persist to the stage of disorder that the laws of most states require. Some applicants, of course, allege acute troubles when the disharmony has not really reached that stage, but perjury of that sort should not be required.

C. One deadly feature of divorce laws of most states is the interlocutory decree. This is a decree of divorce that is not valid until a year after its initial granting. Within the year period neither of the ex-mates can marry legally, so that illicit coitus is promoted and marriage laws are brought into disrespect. It would be far better to go to the other extreme and grant a divorce only when there is a reasonable probability that both the ex-mates will remarry within two months. Since that is impracticable, a divorce should be valid from the moment at which the decree is entered, and the ex-mates should be encouraged to marry again without long delay.

It may be argued that some divorced persons should not remarry, since a second marriage would be as disastrous as the first one. This may be true in some cases. If, however, one whose low standards caused failure in a first marriage finds a new mate with standards of the same order, such remarriage is socially better than the celibacy of either. Chances of suitable assortative mating are better after divorce than for the first marriage. A person whose maladjustment, whether mental or moral, has caused marital disruption might, in theory, have the maladjustment remedied, but this is apt to happen only in the cases of young persons.

A man or woman who has maintained marital relations for several years is not apt to become a celibate when a decree

of divorce is granted; some do, but the majority do not. If one of the divorced pair has a paramour, the two usually do not wait for the year of delay to expire, but engage in illicit coitus. The total effect of the interlocutory decree is to increase the number of persons who are engaging in illicit intercourse and to make promiscuity more popular. Laws making marriage more difficult, such as the ill-famed gin-marriage law and the law requiring medical examination, are major threats to our family system, along with the interlocutory decree, since they promote promiscuity, perjury, and marital bootlegging.

D. If it is admitted that both husband and wife want a divorce, the application can be thrown out by the court on the ground of *collusion*. In most divorce suits, both the parties really want the decree granted, and the courts are well aware of the fact and close their eyes to it. If the defendant can be found, he is expected to oppose the granting of the decree, perjuring himself suitably.

The best grounds for granting a divorce are that both husband and wife are agreed on the point. Psychologists and sociologists recognize this fact; but it seems that the majority of legislators are quite ignorant of the 'facts of life.'

E. As we have implied, considerable discretion is allowed to judges in courts of marital relations, and this discretion appears to be exercised in most instances for the benefit of persons in trouble. Some judges, on the other hand, have made pernicious use of their discretion. Not a few judges have prided themselves on the number of couples who have applied for divorce and have been persuaded to withdraw the application and patch up the marriage. Such persuasion is damaging; the discretion of the courts should be restricted to receiving the application and deciding the case in such a way as to protect husband and wife, and the children if any.

Any court or agency that makes its main effort the patching up of unhappy families and the persuading of couples seeking divorce to remain married is a vicious agency, which brings disaster needlessly on many people. Seldom do a couple who have seriously contemplated divorce readapt to one another. Old dislikes and resentments increase, and the original chances for mutual adaptation are not restored. The most important damage is done to the children, for even if children do not understand the strained relations between their parents, they nevertheless are affected thereby. Some youngsters when they approach the age of twenty begin to realize what it was in their earlier family life which kept them upset.

Some couples postpone divorce for years, because of the mistaken idea that they should keep their family together for the sake of the children. Actually, nothing is worse for children than a home in which father and mother are antagonistic or unhappy in their marital relations. In almost all cases the children would be better off with one parent than with both. The constant tension in the family affects the children and predisposes them to neurotic maladjustment, while training and discipline are also disordered. What one parent commands is countermanded, openly or subtly, by the other parent. Each child learns to depend on one of the parents for special privileges and for protection against the other parent. Selfishness and pathological attachments to parents are thus fostered. The typical 'mama's boy' usually develops in a home in which there is friction between mama and papa. In some cases, a 'papa's girl,' pathologically attached to her father, has been developed by these conditions.

The propaganda that families must be kept together at any cost has been bolstered by the claim that a high percentage of delinquent children come from what are called 'broken homes.' Even if these statistics could be accepted

at their face values, they would prove nothing. The important fact is that the alleged percentages are not those of actual delinquents, but only percentages of those caught in their mischief; and conclusions about *criminals* based on a study of *convicts* are notoriously unsound, whether the alleged criminals are adult convicts or juvenile delinquents. Even if this point is ignored, and we consider the statistics as if they were valid, there are still points to be explained before the data can be interpreted. It is often implied that a broken home is one from which one parent has been eliminated by divorce, not by death or desertion, but we are not told the percentage of actual divorces in the broken homes. In the case of breakage caused by divorce, we would need to know the length of time the marriage has persisted before divorce, as well as the status of marital relations of the parents during the period of marriage, since we know that in families in which parents ought to have been divorced, the mental and moral training of the children is bad. Eventual divorce may or may not ameliorate the effects of bad family life on the children in the years preceding the divorce; this depends on the ages of the children and the length of time the disordered marriage had persisted. We need also information as to the social-economic levels of the divorced parents and the parents not divorced.

The greatest trouble with divorce is one not due to laws; it is the tendency to wait too long before considering divorce. The first two or three years of marriage constitute the critical period, and any intelligent person should know by the end of the third year whether or not the marriage has a chance of success. At least a person *could* know, if he or she would consider the evidence. The most troublesome cases of marital maladjustment are those which have persisted fifteen, twenty, or even twenty-five years, although it should have been evident after two or three years that the prognosis was not good.

In some cases one of the mates is upset, even becoming neurotic, while the other is satisfied with things as they are. In other cases I have asked wives whose husbands have treated them shabbily and given them ample legal grounds for divorce, "Why do you keep him? Are you still in love with the fellow?" Sometimes the answer is, "Yes, I'm afraid I am." In other cases the answer is, "Well, I want to keep my home," meaning that she had a meal ticket and she didn't want to throw it away. In other cases, fear of social discredit or, in the case of men, fear of an adverse effect on business relations has been the reason for maintaining a marriage that has failed.

In some of the long-standing cases the wife, although aware of the sad state of her married life, has been hoping against hope that the marital situation would improve. This was the feature of the case of a woman who married a 'mama's boy,' who neglected her to dance attendance on his mama. We inquired whether or not she knew the situation before she had been married three years. Yes, she knew it, but kept hoping things would improve. We didn't ask her what she really was hoping for; we knew that she was hoping the old lady would die.

The advantages of early divorce, for the wife in especial, may be briefly enumerated.

A. If the divorce is obtained before children are born, it makes divorce simpler and eliminates the danger of ill effects on children.

B. Even if there are children, they usually are better off if their parents are divorced when the children are small, rather than later.

C. The ex-wife has a better chance of remarriage if she is divorced in her youth.

D. Chances of gainful employment are better for a younger woman.

E. Prolonged unhappy marriage tends to produce malad-

justment of both husband and wife; this affects their social relations and reduces the chances of successful social and vocational life after a late divorce.

F. The longer the unsuccessful marriage lasts, the greater, usually, is the economic difficulty of divorce. Some couples who have lived together fifteen years or more find that they cannot separate because of the impossibility of supporting the children except by their combined efforts. If the husband pays alimony he may not be able to remarry, while without alimony the wife cannot support the children.

All in all, if the prognosis for marriage is not good, an early divorce should be considered, except of course by those who have religious scruples about divorce.¹

For the reasons set forth, the following plan has been proposed: Require every couple to appear before a court of record not less than two years nor more than three years after the wedding, and have them prove to the satisfaction of the court that they are succeeding well enough to be allowed to continue living together; otherwise the court is to separate them. I have been asked by students, "Suppose they cannot prove their success. What then?" The answer is, "A determined effort to prove it would suffice." Under this plan there would be fewer disastrous marriages, and we may well suspect there would be fewer divorces. At any rate, the abolition of the notion that marriage is the end of things, from which only a decree of a court can provide escape, and the substitution of the principle that marriage is something to be achieved by working for it, and that work to that end is essential for being permitted to stay married, would certainly be a change for the better.

¹ We never advise divorce to persons whose religious principles are opposed to divorce, since interfering with a person's religion is usually disastrous.

*CHOOSING A MATE**1. The Importance of a Right Choice*

Success in marriage depends on all the items we have detailed in the preceding chapter, and also on choice of a suitable mate. The poetic notion that for each person there is one other person, and only one, who could be a perfect mate, is quite invalid. For one thing, no one can expect to have a mate who is perfect. On the other hand, there are undoubtedly, for each young man in the United States, thousands of young women who would make equally good wives for him; the converse is true also. Mates are not constitutionally adapted to each other or predestined for each other. Adaptation in marriage is a matter for endeavor, an objective toward which each pair must work. The adaptation is more probable of success, however, when the mates are suitable for each other when they are wedded. Personal traits must be taken into account, and it is certain that mating with a person of a certain type would make success in marriage improbable, while mating with a person of a different type would make achievement of success possible.

We have discussed various factors that enter into marital success and failure: economic limitations, cultural conditions, suitable ideals, determination and desire for success, and others. Having due regard for the factors, the question arises: How does one go about choosing a wife or a husband? To simplify our answer, we shall consider the problem as it arises for the man. The problem, and the

solution, can be made to apply to the woman by mere verbal changes, which are for the most part changes in the personal pronoun from 'he' to 'she' and from 'her' to 'him.'

It is necessary to evaluate the traits of persons of the other sex who are possible mates. It is stupid, however, for a man to be constantly evaluating as possible wives the women he meets. Here, as in every case where ideals are of paramount importance and planning is necessary, it is essential to consider the ideals carefully, plan the procedures that will make it possible to achieve the objective, and then put aside consideration of ideals and planning, proceeding from there on in an easier manner.

From time to time, the ideals and plans may need to be given renewed consideration. When a situation develops in which one seems to be 'falling in love,' or in danger of attachment, it is well to evaluate the woman in whom one is becoming more and more 'interested.' This evaluation should be made early enough to enable one to sheer off, if it appears that the woman who is becoming increasingly important is not suitable.

If the man has become impulsively entangled, has made a premature commitment, and thereafter has doubts, he should not hesitate to break the engagement. Many couples, after becoming engaged, find out that the marital prospect is not promising, but are prevented by conscientious scruples from breaking the engagement. If the engagement has been publicly announced, the difficulty is maximal. Marriage under this condition is plunging directly into marital woe, which is unfair to the woman as well as to the man.

Marriage should be in any case for love, but one does not need to be mawkish about it. I have often been asked by a woman if I could tell her whether or not she was 'in love.' Several have expressed doubts based on the fact that they have not been 'swept off their feet.' I have to tell them that such demoralization is no valid index of love and that

my trouble with women who have been swept off their feet is the trouble of sweeping them off the floor. If you feel that you just can't do without the other person, or if you are chronically unhappy when separated from her, or if you feel that she is a person with whom you would like to spend your life and for whom you want to make sacrifices, then you are in love, even if not permanently. When you find yourself getting 'that way,' you should stop and consider the case carefully, not, of course, when you are with her.

One general condition for choosing a mate is embodied in the advice the Yorkshireman gives his son in Tennyson's "Northern Farmer, New Style." The Yorkshireman is counseling his son that *property* is an important promoter of successful marriage and reminding him of various couples of their acquaintance whose marriages went on the rocks because of poverty. The advice is: "But I knaw'd a Quaker feller, as often 'a tow'd ma this: 'Doänt thou marry for munny, bot goä wheer munny is.' " The Quaker's idea was that if a fellow associates only with girls who have property, he will fall in love with one of them as easily as with a girl who is poor; conversely, that if he associates with poor girls, he will probably fall in love with one of them. When a man has become entangled with a woman who would not make him a suitable wife, usually he has been associating with women of the wrong sorts. Conversely, this is true of women.

When a man is romantically in love with a woman and analyzes his attachment to her, he usually realizes that she is the woman he wants to be the mother of his children. This criterion of love often is repressed by economic considerations, since children may interfere with success in various fields of life. The desire for children may thus be hidden and may be lost. This is not so apt to occur in women—not in youth, especially. In later life, a disappointed woman may transfer her parental affections to a

dog or cat, and the vast dimensions of the pet industry witness the extent to which this perversion of maternal desire has taken place.

Young women are usually clear on the point just presented. If I ask a woman who appears to be deeply in love with a man whether he is the one she wants to be the father of her children, she will admit it. Some have not previously considered the point, but admit the desire when it is called to their attention. Others indeed will express the desire when not specifically asked about it.

In our economically bewildered society, the practical possibility of having children is being lessened progressively. The overpopulation of the world makes it inevitable that fewer children will be born and that many couples will have none. Married women have already been divided into two classes: on the one hand, *wives*, in the full sense of the term; on the other hand, *legalized mistresses*. Perhaps this separation into two classes may become of eugenic importance, as Plato long ago thought it should be.

If you look upon your potential mate as the one you want to be the mother of your children, if you should be fortunate enough to have children, you are on safe ground, *so far*. Otherwise, your love is not well grounded, and you should reconsider. It is true that in some cases the parental yearning involving the loved one does not appear until the actual birth of a child, whereupon affection for the child develops along with satisfaction as to its parentage. Such marriages are gambles, and their success could not have been predicted.

2. *Important Traits and Unimportant Traits*

Some notions that have been embedded in popular superstitions in regard to choice of mates may be safely ignored. Should a blond marry a brunet, or should each marry one of the same type? This question is strictly irrelevant.

Should those who are of opposite temperaments marry? There can be no general rule about this. A phlegmatic person may mate successfully with one of an excitable, volatile type; but two of the same temperament may marry successfully. If a person's temperament is really unpleasant, he or she will not be a suitable mate for anyone, particularly if the temperament is a symptom of maladjustment. Within the normal limits of variation, temperamental differences are to be disregarded, provided other conditions are approvable.

Some popular notions regarding the heredity of undesirable traits can be, and should be, disregarded. A history of mental disorder in his family, or in the family of the prospective wife, has deterred some men from marrying; but unless you, or your intended, show symptoms of disorder, the family history is of no significance. There *may* be forms of insanity, neurosis, or amentia that are hereditary in the popular sense of the term—that is, will appear regardless of the environmental conditions—but at present we do not know of any such fatal inheritance. An uncle, aunt, parent, or grandparent who has been considered crazy, or low in intelligence, establishes no greater probability that your children will be mentally disordered than the probability for a person whose family tree does not show any abnormal persons on its stem or its collateral branches. It is the complex of traits of you and your prospective spouse that are important, not those of her relatives.

If you dislike fat women and are in love with a slender girl who has a fat mother and discover that in her youth the mother was slim, even this is no matter for concern. We know practically nothing about the inheritance of human traits, but we do know that stoutness is a product of too much starch and sugar in the diet. The things that mothers allowed to happen to them do not necessarily happen to their daughters. A habit of eating heavily of sweets and

starchy food is something to consider, however, since such dietary habits do run in families.

Mates of about the same stature get along well together, although disparity in stature is not necessarily a source of trouble. The effects of disparate stature depend somewhat on whether the man or the woman is the taller. Tall men often marry short women and are not troubled by their wives' shortness; but tall women married to short men often feel conspicuous, and the comparison causes humiliation, for no woman enjoys being laughed at. Tall women admit that they do not like to dance with short men, because they think the onlookers think the spectacle comic. The watchers might be saying, "If she holds him close she'll suffocate him." A tall man, on the other hand, does not object to dancing with a woman whose nose comes no higher than his wishbone.

This difference in male and female attitudes has several bases. The notion that in the family, and in social relations, the male should dominate has come down from early periods of social development, although it was not really primitive. The woman, in periods of gestation and in caring for an infant, needs protection of a physical sort, which in early periods the male could supply. This practical need, without doubt, was the source of male dominance and the male notion of superiority, although the dominance has been expressed in modern times more through economic provision than through male prowess in physical combat.

Old cultural notions are eliminated with difficulty, since they are transmitted from generation to generation by cultural heredity. In the opinions of most women today, the essential feature of masculine beauty is stature, and evidence for this statement is easily elicited. If I ask a woman her opinion of a certain man, as to whether or not he is handsome, she is apt to answer, "Yes, he is quite tall" or "No, he is a sawed-off little runt," or to express the basis for her

opinion in some other way, usually without thinking of the implication of her answer. If a woman is asked to compare two men, one short and the other tall, as to which is the handsomer of the two, her judgment usually has the same implication. If a woman is asked more flatly if she thinks stature is the chief feature of male beauty, she does not commit herself.

Tall women sometimes marry short men and live in harmony with their spouses. Accepting the situation and avoiding concern about it make the solution of the problem simple. In such a mating, the short man is usually the dominant partner. Since she expects other persons to be watching for her dominance of her husband, she avoids the appearance of domination, and the appearance conduces to the reality.

The relative ages of the mates is a matter of some importance. In general, when mates are of about the same age the chances of marital success are greatest. Averages, however, are merely statistical fictions and particular cases need consideration. Statistical studies show no definite correlation between disparity in ages and marital harmony and disharmony. The data for the statistical work, however, have been gathered by the questionnaire method, which is notoriously unreliable unless skillfully employed.

Data on which statistics on social problems are based are collected in a loose way. Questionnaires are handed out, or sent by mail, and the victims are asked to fill them out by hand and send them to the person or persons who need the data. If 60 per cent of the forms are returned, the questioners are fortunate. The 40 per cent who do not answer the questions can well be assumed to include the critical cases, whose answers might have changed the averages and correlations in a substantial way.

The answers of those who do reply cannot be assumed to be completely credible. Estimation of marital success, or

harmony, or happiness, depends on the standards of the different persons. Further, if both husband and wife answer the questionnaire, neither can be expected to be frank in his answer. Again, a man who has married a woman much younger than himself may report the marriage as successful; but this statement may mean merely that he wanted to 'rob the cradle,' succeeded in doing it, and is therefore greatly pleased with himself.

The marriage of a man with a younger woman is one problem, while the marriage of a man to an older woman is another and different problem, as we have explained in detail. The absolute ages of the pair, however, are important. If a man of forty marries a woman of twenty-five, there is still time for marital adaptation; but if a man of fifty-five marries a woman of forty, there may not be time. If the disparity in ages is more than fifteen years, the chances for marital success are less. When a man of seventy marries a woman of twenty-five, their marital adaptation will certainly not be successful, unless the woman is frigid (if such a mating could be called 'satisfactory').

All this shows that success in marriage depends on what one wants to get out of marriage. An old system, in which old men married girls, and at the husband's death the wife, inheriting his property, married a youthful man, seems to have been successful in the economic way; for, presumably, by passing property from husband to wife, and from wife to husband, all families were economically prosperous.

3. Ten Questions for Choosing a Mate

There are ten questions which every man should ask himself when he finds that he is falling in love with a woman, before he has made a commitment, formally or informally. (A woman should ask herself the same questions, changing the pronouns from feminine to masculine, when she finds herself in a corresponding situation.) If all the questions

can be answered in the affirmative, the prognosis is good. If even one of them is answered in the negative, he should think the situation over carefully, for the prognosis is not good. Some sociologists, presenting a list which is similar to (but not so good as) mine, opine that if a certain percentage, say 75 per cent, of the questions can be answered properly, marriage would be advisable. This is like making out a list of diseases and saying that if a person is free from 75 per cent of those listed he is not in any danger.

1. Am I happier when I am with her than when I am with any other woman?

2. When I am not with her, am I persistently wishing for her company, or does some other woman put her out of my mind?

3. Would I be not only willing, but glad, to spend my life with her, centering my other interests about her?

4. Would I gladly give up all interests and activities that do not comport with my devoting my life interest to her?

5. Is she the one woman whom I would choose, above all others, to be the mother of my children, both to give them birth and to bring them up?

6. Do I love her *with* her faults of face, figure, disposition, education, or what not (for she has her faults and I know it); do I even love those faults or defects themselves, as being essential parts of her?

This is quite different from loving her *with exceptions*. If you love her *except for* her buck teeth, her skinny arms, her indolence, her quarrelsomeness, or any other fault, you can be sure that these details, which grate on you now, will grate on you increasingly as the years go by. If you think that annoying traits of temperament can be cured under your tutelage, you should think again. Some improvement may be made by loving treatment, but not improvement in traits that you hold against her or resent.

7. Is she apparently disposed to make for me sacrifices as

great as those I am willing to make for her? Sacrifice must be mutual, or it is unavailing. Marriages in which the sacrifices are all on one side are uniformly horrible.

8. Is she disposed to adapt herself to me, to a reasonable extent, in interests, in temperamental matters, and in other ways, or does she expect me to do all the adapting?

9. Is there a community of interests and culture adequate to a joint life with her?

There is no need for a complete community of interests, and the cultures need not be completely common. On the contrary, some difference in interests is essential, but, without some community as a basis, you will not be able to carry on a conversation with her, after the topic of how much you love each other has worn out. Minor differences in cultural background are not obstacles to success in marriage, but great difference will eventually establish a barrier between you. The highly educated seldom succeed in marriage with the ignorant. Catholic does not often mate happily with Protestant or Jew with gentile; the religious differences may not be of great importance, but the cultures involved are different.

10. Do I like her family well enough to be able to tolerate them, and get along with them, or if not, is it fairly certain that I will not have to associate with them?

If you can answer all these questions affirmatively, without doubt or reservation, you have made a good choice, and the next question is: "Does she choose me?" If even one question has to be answered in the negative, the sensible thing is to disentangle yourself as quickly as possible.

4. Age and Acquaintance

If your choice seems to be good, there is a further question to be considered. How much do you really know about the woman? Are the traits you have seemed to find in her real? Or is she putting on a show? Too often, after mar-

riage, mates find that the real characteristics are quite different from those which were displayed before marriage. After marriage the masks are soon off. Certainty, of course, is impossible, except for those persons who have grown up together or who have associated with each other in a social group for a considerable period before a particular interest in each other has developed. Even association for some years in a group may be of no avail if the association began in adult life; for it is only in youth that, outside of marriage, we discard our pretenses and allow others to see us as we really are.

Hence the danger of marriage outside one's social group and the danger of postponing marriage until late in life. If you marry after the early twenties, you are apt to marry someone whom you have not known in your youth, and whom, therefore, you do not know very well. Youth is the proper period in which to choose your mate. Theoretically, a long engagement for those who were not acquainted in earlier life reduces the risk, but long engagements have other evils, and an engagement that has lasted several years is hard to break. Too often, a pair who have become thoroughly disillusioned about each other, one or the other or both wishing that the engagement could be ended, go ahead and marry because the entanglement has become too complex for them to disrupt. Some persons who have been socially trapped in this way are smart enough to obtain expert help in breaking the engagement, but some go through to disaster.

THE CARE AND TRAINING OF INFANTS AND CHILDREN

1. *To Avoid Predisposition to Maladjustment*

The adjustment of the person has its foundations in infancy and early childhood, and foundations for maladjustment may be laid in this early period of life. This principle had been accepted for centuries, although some of the founders of 'schools' of psychiatry claim to have discovered it in recent years. Many alleged discoveries by psychiatrists and pseudopsychologists turn out to be revampings of old principles in new and bizarre phraseology. An illustration is the 'Gestalt psychology,' which added nothing that American psychologists were not familiar with, except new terms, although in this case the actual concepts involved in the interpretations are antiquated.

The care of an infant does not commence at birth, but begins early in the period of gestation, or even a few years before birth. It is certain that provision for the infant's physical welfare should be made as soon as the egg cell is fertilized, and it has been said that the training of a child should begin with its great-great-grandparents. With that longer training period we are not here concerned, but must take adults as they are and consider those needs that can reasonably be met. We cannot go back of the persons now existing, but we can be assured that whatever improvements are made in the care and training of children will make them

better parents, grandparents, and great-grandparents of future generations.

We can, however, go back of the baby to the mother and demand adequate nourishment of the mother as an essential condition for the production of a sound baby. A sound nutritional program should, of course, be inaugurated several years earlier, but from the moment the baby is in existence the mother's condition is a matter of supreme importance. The fetus is a parasite, attached to the lining of the mother's uterus, deriving its nourishment from the blood stream of the mother. The heredity (inherited dispositions) of the new person about to be may perhaps be established once and for all when the particular egg cell unites with a particular sperm cell to form the new individual; and if so, this heredity can be changed later only by destroying parts of the individual. In any event, however, the development of the inherited dispositions depends on the environment, and, for the prenatal individual, nourishment is the paramount item. Temperature control of course is essential, but in cases where the mother is as much as halfway normal, this control is automatic. Nutrition offers a more serious problem. Protection from germs and other solid substances that may be in the blood is afforded by the placenta, which acts as a filter and prevents most of them from reaching the fetus.

The fetus has first call on all nutrient materials; the fetus cannot be starved without extreme starvation of the mother. The nourishment of the fetus, however, is limited by the materials available in the mother's blood, and nutrition is a matter not of mere quantity, but of a variety of different chemical substances. A shortage of even one of these may be disastrous. A mother may appear to be well nourished, but may be lacking in important items. Proteins, fats, and starches are all essential; and even with these in proper amounts and proportions, shortage of an essential vitamin

may cause trouble. If the mother is lacking in respect to any item in her blood stream, the child may have first claim on that item, but still may not be able to obtain enough of it.

While it is not yet proved that deficiencies in the mother's diet, or inability to utilize the items ingested, are responsible for feeble-mindedness of offspring, the constellations of conditions under which feeble-minded children are produced suggests that the relation exists and is probably the explanation of the apparent inheritance of feeble-mindedness. Dietary habits notoriously run in families, and in families of low economic status the dietary deficiencies may persist for generation after generation, the results in lowered intelligence and physical weakness maintaining the vicious circle. People of easy financial circumstances, however, do not always have sound dietary habits; and diseased conditions resulting from bacterial infections may prevent the use of materials that may be taken into the stomach in normal quantities.

Research on the relation of the mother's diet during gestation to the development of the child *in utero* has not been even commenced. Although we may suspect that maldevelopment is a result of vitamin shortage and of insufficiency of protein in the mother's diet, or that these are at least major factors, we are at present somewhat in the dark. It would be worth while to select a group of women who have produced a number of feeble-minded children and in their further pregnancies see that they are well supplied with vitamins and with protein foods, especially meat. This is an experiment, however, which can be carried out only on an extensive scale, if the results are to be conclusive; and the program would need to be supported by one of the foundations. In the meantime, no expectant mother should take any chances of malnutrition or avitaminosis.

Wherever possible, a pregnant woman should be under the care of a competent obstetrician, beginning as soon as

the fact of pregnancy is established. The function of the obstetrician covers several points. In the first place, he must keep the expectant mother in sound health, which would include diet—except that many obstetricians are not expert in matters of diet and some of them have queer notions. However, the kidney functions of the woman have to be checked from time to time, to ensure that certain well-recognized metabolic disorders have not appeared, and tests of blood as well as of urine are important. Failure to detect metabolic upset in time may lead to results fatal to child and mother.

The obstetrician's business also is to make measurements or careful estimates of the mother's skeletal conformation, with regard to the form and size of the pelvis particularly, to determine whether or not there is a high chance that a baby of average size can be delivered by normal labor. If the conformation of the pelvis is inadequate, then the obstetrician must be prepared to perform a Caesarian section, extracting the baby by opening the abdomen of the mother as soon as signs of labor are manifest. The Caesarian operation is relatively simple and not so dangerous as appendectomy. Obstetricians, however, are not all intelligent, and we come across too many cases in which labor was allowed to go on without results for twenty or more hours before the operation was performed. That such a performance is a crime, detrimental to infant and mother, every layman should know.

In some cases, forceps may have to be used to extract the head of the infant, if the need of a Caesarian has not been foreseen and the operation undertaken. The birth of the head is the main problem and, in the normal head presentation, the rest of the body usually follows easily as soon as the head comes through. In some cases, the pelvic conformation is suitable for a head of average size, but the head turns out to be unusually large. Where there is a breech presenta-

tion or some other abnormal position of the infant, instruments are required for delivery.

Use of forceps to extract the head may produce what is termed *birth injury*, either through trauma of the brain inflicted by the forceps or through injury to the cervical region of the spinal cord. It has become fashionable to ascribe all abnormalities of unknown causation appearing in the child at, or soon after, birth, to birth injuries; but it is not necessarily true in all cases. Some cases of spastic paralysis, however, probably are due to birth injury to the spinal column, although some persons who were delivered without instruments show this form of paralysis.

It is highly important for the pregnant woman to lead a normal life, not only in respect to an adequate diet, but in regard to exercise and social relations. In the past there has been a notion that exercise of moderate violence might produce abortion; and many women were led to adopt sedentary lives because of this fear. This superstition has been a source of much trouble. It is now known that in almost all cases of abortion that were not deliberately produced, the fetus had been dead for some time before its actual expulsion, in some cases more than a month. Where exercise, or a fall, has produced abortion, it has been the ejection of a dead fetus, the retention of which constituted a threat to the mother's health.

The advice of the best obstetricians is for the pregnant woman to go about her life as usual, insofar as her normal life does not affect her unpleasantly. Overexertion, of course, is undesirable, and the reserve of physical strength must be considered. If she enjoys tennis, swimming, or any other sport, indulging in such a sport is safe, so long as she finds it pleasant and does not become overfatigued. Any form of exercise or sport will become unpleasant toward the end of pregnancy, but the woman's feelings are safe guides.

The question concerning coitus during pregnancy is an important one for some persons. Some think that coitus during this period is improper. There have been notions that it would have a deleterious effect on the child. Some inquire as to the stage of pregnancy up to which coitus is permissible and beyond which it is not permissible. The question is easily settled. Some women in excellent health have a greater desire for coitus and derive greater satisfaction from it than they have had in the period preceding pregnancy. Under these conditions, coitus is an excellent procedure. If coitus is painful or disagreeable to the woman, it should not take place. The answer for all cases is: so long as the woman wants coitus, and enjoys it, she should have it. There are cases in which a woman has had coitus, with the orgasm, three hours or less before labor commenced, with no deleterious effects. Of course, in the later months of gestation, when the infant is large, special care needs to be exercised in regard to pressure on the abdomen, and a position in coitus different from the usual one may need to be adopted.

After the child is born, its feeding becomes a problem. Some women, in ill-health or undernourished, do not secrete enough milk for the infant's use. In some cases where there is abundant milk the infant refuses to take the breast, for reasons which are not discoverable. Where milk is normal and the infant is willing, breast feeding is important for several reasons. In the first place, human milk is the most suitable food for a human infant. In the second place, the nursing of the child produces, reflexly, uterine contractions that assist in the restoration of the uterus to its normal compact form. For this reason, sound obstetricians place the child at the breast even before the milk secretion has commenced. In the third place, the stimulation by the infant produces an attachment of the mother for the child that might otherwise be inhibited. In the fourth place, the

genital responses of the mother, if not completely established previously, are given a further 'build-up,' and her pleasure in coitus in later periods increased.

Some of my greatest 'peeves' have been against obstetricians who, because of an armchair theory, have refused to allow the mother to nurse her baby, although milk was plentiful and the mother needed the stimulation for several of the reasons above outlined.

2. *Infancy and Childhood*

When we speak exactly, we apply the term *infancy* to the period of life that extends from birth to about the second birthday; the actual period of infancy varies from person to person. The term *baby* properly applies to the infant during the first six months or so. The word *infant* means literally, 'one who is unable to speak.' The infant begins to make sounds that are the foundations of language before he is six months old, sometimes by three months, but speech, as a definite means of communication, does not develop until about or toward the end of his second year of life. Walking is possible ordinarily at about the same time, but may appear sooner. Precocity in talking is not dangerous, but too early walking may be damaging. Delay of a month or so beyond the second birthday, in either talking or walking, is not a serious sign; but delay in walking beyond the third birthday is an indication of need for careful examination of the child's physical health. Overweight, or physical weakness, may be the source of the delay. If neither speech nor locomotion develops until the child is well along in his third year, the indication is more serious.

The damage done by too early walking is deformation of the leg bones; this may make the child bow-legged or knock-kneed. An infant should not be made to walk, or stimulated toward walking, until he displays one or more signs of readiness, of which pulling himself to his feet with-

out assistance is the most reliable. Creeping and crawling may precede walking, but these means of locomotion are not important, except that if the infant shows inclination to creep or crawl he should be allowed to do so.

Childhood, in the proper sense of the term, extends from the end of infancy to the beginning of adolescence, which begins, on the average, between the ages of ten and thirteen. The transition from childhood to adolescence is usually gradual. Puberty, the point in development at which reproduction is possible, is an incident of adolescence. In colloquial language, it is common to call both the child (in the exact sense) and the infant a child. This usage does not necessarily produce confusion, although it is advisable at times to use the exact terms.

Methods of caring for infants and children have developed through the ages, through group experience. In modern times, some of the principles and practices developed by our ancestors have been attacked by theorists, who have invented, in their armchairs, methods that they have believed to be better and that were a few years ago urged on the public as 'scientific.' Bitter experience with the results of these arbitrary methods has caused what *might* seem to be a return to traditional principles and practices, but what is really a clarification of ancient principles and a rectification of traditional practices. Scientists cannot safely discard the hard-won achievements of human praxis, but can build upon them, validating the sound features and eliminating features that may properly be called 'superstitious.'

Diet has been discussed already as a factor in child development, as have diseases and other physical conditions, which, properly controlled, permit sound development, but which, improperly controlled, become predisposing causes of disorder. Our attention now is to be focused on psychological factors in child development and on injurious psychological factors as causes of mental disorder. Some of

these factors are, in their intrinsic nature, physical, but they are stimuli to responses and so are, in effect, psychological.

3. *Handling the Baby*

Some armchair experts have spread the theory that infants (babies especially) should be handled as little as possible and that they should be held in the arms, or on the lap, only when such holding is necessary for bathing and dressing them. The theorists have propagandized especially against the practice of trotting babies on one's knee and of tossing them in the air. These pseudoscientific theories have, unfortunately, been taken seriously by some parents, who have therefore prevented their infants from receiving stimulations that are important for their normal development.

There is, of course, a time for all things. In the first few months a baby should be handled gently. He should not be held in the sitting position until it is evident that he enjoys it. In later months he should not be trotted or jounced immediately before mealtime, or within a half hour or more after a meal, since trotting a baby who has just been fed may cause him to disgorge. For any age, there is a limit to the violence of trotting that can be employed, although by the time the youngster is two the limit is set by the endurance of the trotter, rather than that of the child. Tossing should be done only by one whose strength and skill ensure that the infant will not be dropped. It is a risk for a feeble or unskillful person even to hold a baby on his knee, but with the average adult the risk is slight. Mothers have been known to drop a baby while washing it; but the damage is to the child's feelings rather than to his constitution. It is safe to ride a ten-months baby on your foot, if he likes it, and if you can 'take it.'

Trotting an infant on one's knee may be gentle at an early

age and can become more strenuous later. And how they love such treatment! And how they thrive on it! Your best guide is from the evidence that the child likes the treatment, always keeping on the clearly safe side in respect to violence of trotting.

If you have not the physical strength to give your child the visceral stimulation it needs, which it often gives itself by running, jumping, and sitting down violently, or if you are so tied down by your duties that you have not time, you can get a seat mounted on a long spring, in which a child from two years up, and even of less age, can be safely strapped and can jiggle himself up and down. Otherwise your infant may have to resort to the procedure which the heavy son of a lightweight friend of mine practiced. This child supported himself on elbows and knees, and swayed back and forth, bumping his head against the wall or some piece of furniture. This habit ceased when he was provided with a spring seat.

One father asked us if he was acting correctly in tossing his children. He said when he came home from work his two children met him when he got off the streetcar, and wanted to be tossed. (The place where he left the car was out of sight of his house, so his tossing of the children was not seen by his wife.) The trouble began, he said, when neighbors' children came with his, and also wanted to be tossed; hence, the job got to be too great. We told him to see the other fathers and urge them to do the duties they were neglecting.

4. Entertaining the Baby

The baby, from two months on, needs a lot of stimulation of the sort that might be called 'mental'; you might also call it 'social.' Letting the baby entertain himself breeds trouble for him later. Some parents have pursued the plan of leaving the baby in his bassinet when awake and later,

when he can sit up and crawl around, putting him in a pen with some toys and leaving him there. This practice is followed sometimes because the mother has pressing duties, which prevent her from giving the infant adequate attention. Sometimes, however, the mother thinks she is doing the correct thing.

Babies treated in this way are apt to become problem children. If they are sent to a good nursery school as soon as they are able to walk, they may be straightened out, but this depends on how smart the people in the nursery school are. If nothing is done to help the neglected child, several things happen.

A. He sucks his thumb. This is a habit that is hard to cure, once it is established. That it does not always deform the shape of the jaws is true, but in many cases deformation occurs, and the expense of having an orthodontist reshape the jaw later is rather heavy. Especially if the child holds his thumb in the mouth with the ball up, the shape of the upper jaw is changed, and the teeth do not mesh well. Protruding teeth may also result when the thumb is held sideways, or the finger instead of the thumb is sucked.

B. Even if thumb-sucking does not occur, the child is apt to become nonsocial. It might be assumed that making the child depend upon himself would make him independent and self-reliant. It does not. Instead it has the negative practice result. The child later is unable to make adequate social contacts with other children, lacks initiative, and tends to become morbid. A good foundation for later maladjustments of various sorts is laid by this practice of neglecting the child, especially neglecting him in early infancy.

During the first month or so a baby may be considered as a little animal, whose main needs are food, rest, and washing. In a couple of months, however, the child needs mental stimulation, especially social stimulation. At first the mother or nurse supplies this. Later the cooperation of

other adults is highly useful. Eventually, the child must have his social relations with other children, but in the first two or three years adults may supply the needs.

The infant, unless congenitally defective, is making a prodigious mental development, insofar as he is given the opportunity. He is learning faster than he ever will in later life, although his accomplishment may not seem impressive. He needs to be held in persons' laps, talked to, allowed to grasp objects and throw them on the floor; in a variety of ways he needs during his waking periods to be given what you call 'entertainment,' but which might be called 'social stimulation.' Fortunate is the infant who has a number of adoring aunts and uncles (real or self-elected) to play with him and give him social stimulation.

That a baby who might have been of average intelligence can be made feeble-minded by neglect during the first two or three years of life cannot be assumed as yet, although it is possible. However, we must remember that heredity, as scientists now regard it, does not determine the individual in a fixed way, but establishes limits to the development possible in various sorts of environment. Intelligence is hereditary, but so is every trait of the individual, physical and mental. The old popular notion that some traits are inherited, and other traits determined by the environment, has finally been abandoned by scientists.

Whatever the heredity of the individual, his actual level of intelligence will depend on his environment. Environment includes food, general health, physical and mental stimulation, and training. The persons we call 'feeble-minded' or 'retarded' respond to these factors, and the actual level of retardation depends on these environmental factors. The particular directions of mental development and mental retardation likewise are determined by the sorts of stimulation and opportunity provided.

We have explained earlier that heredity provides a pos-

sibility of responding to different environments in different ways, and probably sets a limit to the possible development in environments of the usual sort. Two individuals may not develop intelligence of equal levels in the same environment; but each will develop to a higher level in a better environment than he will in a worse. This is parallel to the fact that two individuals of different stocks may, with much the same food, freedom from diseases, exercise, and other hygienic factors, develop different statures and different head forms; yet that, with a given heredity, these environmental factors will influence the stature and head form is well known. The hereditary limits for variations in head form are small and it requires several generations to produce a marked change from the head form of the ancestry; the limits of variation in stature for a given individual are apparently somewhat greater. What the limits of variation in intelligence are in any given case we do not yet know.

In any event, neglecting an infant or young child, whatever his heredity, prevents his attaining the level of which he is capable, not only with regard to social adaptation (which some call 'social intelligence') but also in intelligence considered as ability to learn the various things it is necessary for an individual to learn. Even the limited sort of intelligence tested by intelligence tests is affected. If you want your child to make a good IQ when he is of school age, find out the sort of thing that the Binet-Simon scale measures (or tests) and begin early to train him in those fields. In this test, a child is asked whether he is a boy or a girl. To point to his eye and to his nose. Obviously no child could make the correct response unless he had learned the meanings of these words in a practical way. He is asked to make change for a quarter or other piece of money. Obviously the child who has not been made acquainted with hard money will not be able to do this. If you begin early to acquaint your child with the various things on which the

Binet-Simon tests are based, introducing the different things at the ages at which he is interested in them, he will make a better score than he otherwise would. If he is eventually tagged with a low IQ, you at least have done your best by him. Is this cheating? No. It is merely giving your child the chance that a lot of other children have had. No comparison of intelligence ratings of different persons is fair unless all those rated have been given equal opportunities and equal motivation to learn the things on which the tests are based.

5. *Feeding an Infant*

Among the reasons for having the new-born infant nurse at the mother's breast, we noted that human milk is the best food for the baby. In some cases, breast feeding is impossible and bottle feeding is necessary from the beginning. The breast-fed baby usually graduates to the bottle later in infancy. There are standard formulae for the bottle, mixtures of cow's milk, water, and limewater. Sometimes goat's milk is used and seems to be adequate, although it is necessary to make certain that the goats are not infected with the form of undulant fever (brucellosis) common to goats. This is the old Malta fever, which has been prevalent around the Mediterranean from earliest times; pasteurization of milk, however, kills the *Brucella* organism.

It must not be assumed that a standard mixture, or any of the standard mixtures, will agree with a given child. Experimental trying of various formulae is usually necessary to find the mixture the child will tolerate. A judicious and competent obstetrician or pediatrician can determine the proper mixture to use. Sometimes, however, the mixture prescribed patently disagrees with the child, in which case, you have to use your head. In one case under my observation, the standard mixture disagreed with the infant, who threw it up. The parents tried a mixture of condensed milk

with malted milk; adding the malted milk because they knew condensed milk alone does not have the full necessary food values for an infant. The mixture agreed with the infant, and when the parents reported to the physician, he said, "That's fine; keep on using it." Commercial babies' foods usually need additions to make them adequate and should not be used without the sanction of a competent pediatrician or general practitioner.

As the infant grows, it begins to be ready for solid food. No infant should live for a year on milk or milk mixtures alone. According to present standards, the first solid food should be meat.

A generation ago, there was a theory that in late infancy and early childhood the diet should be cereals and strained vegetables. Many youngsters were brought up on that diet, but the results seemed to be bad. At the present time, with the addition of vitamins, the diet might not be so disastrous, but there is still serious doubt that a meatless diet can furnish the proper nourishment and stimulation for the nervous system, especially in infancy and early childhood. Through the past ages, children have been weaned on meat, as the children of the better savages still are, and meat agrees with our children. There is no danger of a child's eating too much meat. Of course, there are other protein foods that may take the place of meat. Savages eat ant eggs, grubs, and other creeping and crawling vermin. Such foods might, for all we know, be excellent for infants, but we do not use them, so we stick to meat and eggs for children.

One danger in the diet of cereals and vegetables exclusively, in childhood, is that the child may not form a liking for meat and may persist as a vegetarian, thereby acquiring a predisposition to neurotic maladjustment. An allergy to protein foods of all kinds may even be built up. In one case, a stammerer improved under treatment but was told

that he would not become cured to the point at which no evidence of his former stammering showed, unless he ate meat. He explained that if he ate any protein food he broke out with a rash, and his mother said he had had an allergy to protein foods from infancy. After he left home (I think about a year after leaving), he lost his allergy and began to eat meat. The results were as we had expected. The allergy, of course, was psychological, tied up with his mother and conditions in his life in childhood.

A safe estimate of the stammerers with whom I have dealt during forty years is that at least 90 per cent of them have been non-meat eaters. Some have never eaten meat at any time during their lives. Others report that they eat "plenty of meat," but further probing usually reveals that what they think is plenty of meat for a week would be about one small serving for a normal person.

Dietary habits are largely established in late infancy and early childhood, and changing them later is a matter of difficulty. Liking for all solid foods is an acquired liking, and the building up of tolerance and liking for a varied diet should begin in the period of infancy. A person who is finicky about his food, who can't eat this and can't eat that, is really a maladjusted person, whose proper adjustment was not begun in infancy.

6. *Learning to Talk*

I have spoken of the importance of talking to the baby, and this is especially important for his acquisition of language. The young child obviously needs to hear a lot of talking if he is to learn to talk adequately; and this bombardment of words should begin in infancy. Whatever sort of talk he hears, he will learn to produce. If you use profanity in the child's presence, he will learn to use profane words at an early age. If you talk baby talk to him, he will be cursed with babyish ways of talking. If your gram-

mar is bad, so will his be. If, for example, you use his name or sobriquet instead of the proper pronouns, saying, "Does baby want his bottle?" or "Jimmie got pain in tummy?" his first phrasing will follow your pattern. There may be no objection to the employment of conventional simple terms like 'tummy' or 'bye-bye,' but don't say, "Baby wanna go bye-bye?" say, "Do you want to go bye-bye?"

In most respects you should talk to your offspring as you would talk to an intelligent adult. Simplify your terms, but stick to good grammar and proper rhetorical forms. Beginning at three months at latest, use the personal pronouns in their proper case forms—I, me, my, mine; you, your, yours; we, us, our, they, them—and you will find that the child will pick up the proper usages more readily than you might have expected. There are, of course, individual differences (hereditary, if you will). A child may pick up correct language from hearing you talk to other adults in spite of your talking baby talk to him. Some children have difficulty with certain words and adopt substitute terms of their own. In any case, however, your child will do better in language acquisition if he hears nothing but correct language. If aunts and uncles or other adults talk baby talk to your child, 'pin their ears back.'

Most children, at the age in which language is being rapidly acquired, have trouble with words. They mispronounce words and they get the order of the words wrong. This is to be expected. There is a temptation to parents to correct the child's pronunciation and his phrasing. Some parents stop the child and make him say over the words mispronounced. A child may speak indistinctly, and there is a temptation to tell him to speak more clearly. All this is dangerous. The danger is of making the child a stammerer by calling his attention to his speech processes. "Lay off the child's speech. Let him alone. Stop riding

him," we have to tell parents. Speech correction should not be employed on a child before the age of seven, at the earliest, and usually not even then. The child learns to speak by hearing speech, and your problem is to speak correctly in the presence of your offspring.

If a child persistently mispronounces a word, it is sometimes safe to tell him, at a time when he has not been mispronouncing, "You seem to say 'wobbin,' but the word is really 'robin.'" Even this form of correction may be dangerous. Better let the child wrestle with his words, and eventually he will be able to say them.

For young children, speech-correction classes in schools do more damage than good, as almost all teachers admit. When a child is ten, if he has been mishandled and taught to speak incorrectly, something may be done about it, but not earlier, and often not even at ten.

7. Loving the Child and Attachment to Parents

Petting a baby or child and expressing your affection for him in various ways have been a bugbear to some theorists. The cause of this fear seems to be the confusion of erotic feeling with parental and filial feeling. If you believe that affection of parent for child, and child for parent, is 'sexual' in the erotic sense, then you may be persuaded to repress parental affection or the manifestation thereof. Don't be so stupid. It is possible for erotic attachment of mother to son or father to daughter to grow up, but this has nothing to do with parental and filial attachment.

In the later years of childhood it is possible for children to become too dependent on the parents, and so to lose independence, self-direction, and initiative. This has nothing to do with the expression of affection, and I shall revert to this later.

The adequate and suitable expressions of affection necessarily change as a child grows up. In infancy, holding him,

hugging him, and caressing him are appropriate. Later, less caressing and less verbal expressing of affection are desirable. Public demonstrations of affection in particular are disagreeable to the child and nauseating to spectators.¹ Addressing a child as "dearest" or "darling" in public is something definitely to avoid. Nicknames of certain types are also to be avoided. Call your son John, Jack, or even Junior, and your daughter Geraldine or Jerry but not 'sister,' for such nicknames cling through the years. In private you can call your offspring by endearing terms, but after the child has emerged from the infant stage, this should be restricted to special occasions.

Acts and words which, used discreetly and economically, have great significance and value lose their meanings when they are so habitually employed that they become stereotyped. The morning good-by kiss, which is a habit with some pairs, we have already used as an illustration. When it becomes conventional or habitual it has the same meaning as the words 'good-by' or 'ta-ta.' It has, moreover, a serious disadvantage in that if in a hurried exit the husband omits the ritual, it may seem to the wife a significant omission. Ritual is a fine thing, but expressions of affection should never become ritual. What goes for husband and wife, in respect to expressions of affection, goes even more strongly for parents and children. Never let your children doubt that you love them, but express your parental affection discreetly, with due regard for time and place. In particular, don't kiss your ten-year-old boy in the presence of his pals.

¹ The same holds true for public demonstrations of affection between husband and wife. Nothing is more nauseating than to see a couple of grown-ups pawing each other in public. Mushy or mawkish language is almost as objectionable. In many cases, the constant public addressing of one another as "darling" or "dearest" is just window dressing, but not good window dressing. There are a lot of things which may be approved, but which should be done in private.

8. *Training a Baby*

Babies must form habits of feeding at regular hours and of sleeping at regular periods. In these respects repetition is the main factor. Babies, to a far greater extent than those of older years, learn to do by doing, without thinking about the processes or desiring to form the habits. We do not know the age at which thinking commences. Feeding the baby on an approved schedule forms his feeding habit. Putting him to sleep at regular times with proper attention to details, such as not playing exciting games with him before sleep time—details that you know are important, but the baby does not—form the habit of sleeping.

But what if the baby cries for his bottle at the wrong time? What if he won't go to sleep when put to bed and wails when you leave him? The practice that was widely recommended a few years ago was to let him cry it out. If he cries for his bottle, or you think he is crying for it, let him cry. Eventually he will stop. Repetitions of the unpleasant experience will in the course of time eliminate the tendency. Yes, it will; but we think it is bad for the baby, physiologically as well as psychologically. I might point out a parallel in the old practice of keeping a baby quiet by keeping it doped up with soothing sirup containing morphine. That plan works, too, but it is not to be recommended.

Often the baby cries because of something hurting him; it may be a wet diaper or a pain in his tummy. Often he cries because he is in the condition which, in an adult, we would call being 'bored' or 'lonesome.' The cry is a call for entertainment. In any case, find out what is the matter and comfort him. If it is a period in which he should be awake, he needs entertainment. If he ought to be asleep, soothe him so that he goes to sleep. Patting, strok-

ing, jiggling the springs of the crib often help. If there is actual discomfort, holding him, rocking him are excellent. Singing is often a great comfort to a baby; even if adults don't like your singing, babies will.

When it is time for sleep, and the baby won't go to sleep, don't be afraid to try any or all these measures. Don't let armchair theorists mislead you. These measures have been used through the ages and have been found satisfactory. There is no scientific evidence against them. Your baby needs society and social stimulation, and you harm him by depriving him of his rights.

The tentative theories of learning developed by psychologists during the last fifty years have caused some parents to fear that putting a child to sleep by any of the traditional means will form the habit of requiring these means constantly. You can, indeed, foster such a habit, but you need not. The fact is that the principle of negative practice applies to babies, even though the mental factors that are essential for application to adults are absent. If you look on the technique of putting the child to sleep as a means of forming the habit of going to sleep without the techniques, you will succeed, although I cannot lay down any rules that can be mechanically applied to every individual case. The main point is that the hour and the total conditions aside from the technique must be constant.

An illustration of the possibility of forming a habit of response to a particular technique is experimentally at hand. I trained an infant of fifteen months to go to sleep rather quickly to the humming of a simple ditty. I found that during the baby's normal waking period, shortly after waking up, she could be put to sleep, while being held in my arms, by the humming of the ditty. The baby would first cry—in adult terms “she didn't want to go to sleep”—but very quickly she would drop off and would wake up when I stopped singing. I may add that there was no great diffi-

culty in forming the habit of going to sleep, at the proper times for sleep, without the ditty.

Other forms of training are necessary for the baby. He must be trained to control his excretions. This control does not come through any mystical instinct or process of maturation. Specific techniques are necessary, and they are well known. Only one point needs mention. In training the baby to control its urinary function at night, the baby must be gotten up two or three times during the night. As it approaches childhood, the periods can be reduced to two and, some time between two and three years, to one. In infancy, waking the baby is possibly unimportant; but the child over two must be wakened if the control is to be established and the danger of promoting somnambulism avoided.

There are, of course, cases of enuresis (bed-wetting) in which pathological conditions requiring medical treatment are important; and drinking just before going to bed should be restricted; but most cases of enuresis persisting into late childhood are just results of bad training, or rather, of lack of training.

9. *Training in Childhood*

In the period of your child's infancy, the keynote of his care should be: treat him as if he were fundamentally an intelligent person. When he emerges from infancy, and during his further childhood, you should continue to treat him in the same way. He needs guidance, not because he is lacking in intelligence, but because he lacks experience. If he is to become a responsible self-directed person, the guidance or direction must not be overdone. If you continue to plan his life for him in detail as he grows up, selecting his clothes, his friends, his lifework, he will become either neurotic or unruly, depending on the cleverness with which you apply the process of asphyxiation to his independence.

Many problem cases in the late teens or early twenties

are suffering from the close supervision and direction of mothers who are highly competent. If the child forms a dislike for the mother, he may break away from the leading strings, although the form the breaking takes is not always sensible. If the child has real affection for the mother and a decent regard for her, he becomes a spineless creature or neurotic in some other way. Usually, the asphyxiating mother is a really fine woman, and an intelligent child recognizes this and cannot bring himself to disregard her wishes. Often the mother tries to select the person the grown child should marry; but in many cases the mother merely breaks up any attachment that might lead the youth to marriage and so take him out of her control. In such cases, the mother may approve highly of a young woman until she finds that her son is falling in love with the 'witch'; whereupon everything is wrong with the female who threatens to take the son away from mama. We have known cases in which girl after girl has been blasted by mama, until finally the son gave up and remained permanently 'mama's boy.'

Sometimes when a son or daughter has taken the bit in his teeth and married the mate of his choice, the mother resigns herself to the situation, and all is well. We recall a young schoolteacher who displayed neurotic symptoms and who, we found out, was in love with a young man of whom her mother did not approve. Investigation showed that the man was suitable for her and was able to support her. We advised the young woman to marry him and tell her mother after the deed was done. The mother was intelligent enough to accept the *fait accompli*.

In some cases, the mother is unable to adjust herself to the situation and needs advice. One mother tried to commit suicide after her son married a young woman of whom the mother had previously approved. She had deserted her father in Europe to look after her son in America and had

woven her life into that of the son. After the son's marriage, she thought no one needed her. We advised her to return to the old country and to look after her father, who certainly needed her. She took the advice, and the results were successful, up to our last information.

In cases that do not involve marriage, mothers adjust themselves to the breaking of the apron strings after the break is made. One young woman, who was self-supporting but who was still under her mother's thumb, took university extension courses along with her job and decided that she would go to the University of Chicago for a summer quarter, to accumulate more credit toward a degree. Her mother vetoed the plan, saying that her health was bad, that she might become worse and her daughter would be too far away to give her help. We advised the young woman to apply for admission to the university, to make her railroad reservation, to engage living quarters in Chicago, and then tell her mother about it. She followed our advice, and in less than a month the mother was boasting to her friends about her smart daughter, who was taking work at the University of Chicago.

Some mothers, on the other hand, are unable to adjust to a *fait accompli* and continue to attempt to dominate a child after his or her marriage. One mother, after her daughter's marriage, followed the couple from state to state, continuing to direct the daughter in her married life, even to details of housekeeping. She told the husband, "She is still my child." The young woman took to drink, and, after being 'cured' by two fraudulent systems, was still a drunkard. We told her that if her mother was willing to talk to us, we could get her out from under the maternal thumb. She replied: "Mother would be glad to talk to you, but then she would be annoyed and would wreak her annoyance on me." So nothing could be done. Like most dipsomaniacs, the young wife was unable to face her situation in

a realistic way, although she recognized the situation as the cause of her trouble.

Rebellion of children against parents is often necessary, and we sometimes have to abet or suggest such rebellions. This is not an attack on proper regard for parents, and we are not opposed to the giving of aid to parents when they are in real need; filial regard and filial duty, however, are often turned into agencies of evil. A competent mother who manages efficiently her children, her husband, and the local church cannot automatically release her children from her control. In his younger period a child is often discouraged from asserting his independence by the fact that, when he does do something against his mother's prescription, it turns out badly. "Mother was always right!" is a cry we have often heard, to which one young woman added: "That was the hell of it!"

As the child acquires experience, he must progressively be allowed a share in the direction of his life. The young child cannot be turned loose to do as he pleases, since the matters at stake are too vital to be turned over to him completely. Some guidance, for example, in selecting clothing is necessary, but the child should always have a say. The function of the parent is to prevent the child's choices from being disastrous or unserviceable. In every other affair, the same cooperation is necessary, with greater and greater responsibility being assigned as the child grows up.

The principle to be followed is that of allowing a child to begin by making decisions in matters that are not of a permanent nature and progress to more vital decisions. The selection of a school, and of studies in school, should not be left completely to the child, but he should have some choice in these matters. Selection of playmates and friends cannot safely be done by either parent or child alone; guidance is necessary in the younger periods. Too often, however, the parent's choice is determined by class and eco-

nomie prejudices, and not enough by consideration of the social needs of the child.

The matter of the magnitude of the risks the child should be permitted, in doing what he wants to do, is of prime importance. Skating on the sidewalk and swimming are risky. If, however, other children are doing these things, a child must not be prevented from engaging in them just because they are dangerous. There is, of course, a risk of drowning for the swimmer, especially for the novice. There is a risk of breaking an arm, leg, or teeth in skating. On the other hand, if the child is made to fear these risks, there is certainty of making him a weakling and there is considerable risk of developing phobias that transfer to other topics and damage the person later. Dangers that are real should be explained and the principle of taking no risk that is not worth the game should be inculcated. Children must learn to evaluate risks in terms of probable winnings. The child who is prevented from taking reasonable risks often breaks over and tries the things he is supposed not to do and is in worse danger than if he had progressed in the normal way. Protecting children unduly not only conduces to maladjustment, but also may expose them to greater dangers than those from which they are presumably protected.

In the course of training a child, discipline is necessary. Every person must learn that there are things that are forbidden. In childhood, the parents forbid. Later the law prohibits. Neither parents nor laws are completely rational, but discipline is necessary, nevertheless. The worst laws are those which are laxly enforced, and the worst parental authority is likewise the unenforced. The technique of enforcement is all important.

Children can learn to recognize a *fiat* as final and to distinguish such a *fiat* from advice and suggestions. If you speak to your child, telling him to do something or not do something, repeating it from time to time, and allow him

to disregard the command until finally you have to take violent steps, discipline is not being taught. A flat command once given is enough. How do you arrive at this sort of discipline? Not by saying, "Johnnie, put up your game and go to bed," and repeating the order from time to time, with Johnnie doing nothing about it until you scream at him or administer a slap. Johnnie only learns to wait until he judges that a command is really meant. Better go over and help him put his things away and start him for bed. Use your head and do *something* that will secure obedience without repetition of the command.

Delinquencies occur. Scolding is no cure. Lecturing is a damage. Present the facts to the child, pointing out, in the fewest possible words, the unfortunate results of the misdeed, and then *drop the subject*. A child to whom the case is presented briefly and clearly, without excitement or exaggeration, is apt to see the point and to do better thereafter. If he is scolded or lectured, he must, if he is a child of spirit, build up a defense for himself, whether he speaks it or not, and the effects of his error are lost. The point having been dropped, it should not be brought up again; nagging is destructive. To scold a child in the presence of other persons is especially damaging, and to discuss a child's delinquencies in his presence is criminal. Such treatment of children makes them craven, or incorrigible, or otherwise maladjusted.

I suppose that if you lose your temper it is less harmful to strike a child than to scold him. Bernard Shaw said, "Never strike a child except in anger," and he may be right. Some mothers, however, vent their spleen on their children by weeping or mourning. "Oh, how you have hurt mother," they say. This is a 'dirty' advantage to take of a child. If he is decent, he is made to feel immoral and degraded, for he doesn't want to hurt mama. If he has already had a bad start, he becomes more callous to his parent's feelings.

Scolding, nagging, too much talk about a sin, and sniveling are excellent methods for preparing a child to be maladjusted. Another effective way to 'get a child down' is to check up on him constantly and openly. If a child is late for dinner, to put him in the prisoner's dock and make him give a detailed account of himself is bad procedure. Training a child to give full reports of his doings without questioning is at least as bad. It is sometimes necessary to check up, but this can be done best in private, and in a way that will be accepted by the child as reasonable.

Training in morals should be brought about by developing responsibility in the child and by appealing to his intelligence. Feelings of guilt and sin are damaging, and it is best to present delinquencies as stupidities rather than as sins. In most situations, explanations of why certain things are not done are satisfactory and salutary. The factual results of misdeeds are often sufficient. In other cases, appeal to convention, to the fact that people we respect don't do these things, is quite intelligible to the child. In no case is it beneficial to be shocked at any misbehavior. The fundamental moral attitude of respect for the welfare of others is best produced by displaying that attitude yourself, and that includes the attitude toward the child himself. Too often parents who present moral principles to their children are known by the youngsters to cheat, lie, backbite, even steal. Parents often seem puzzled by their progeny, who do the things that they are taught not to do and leave undone what they are taught to do (in verbal phrases), when they are merely doing as their parents do.

Selfishness in a child, however, is sometimes fostered by unintelligent unselfishness on the part of parents. Sacrifice yourself for your children where such sacrifice is rational. Giving up too much, to give your children what they ought to have but ought not to have at this cost, is irrational. The child must learn to share with his family, not to be a para-

site. If you make yourself a doormat for your children, don't be astonished if they eventually wipe their feet on you and become extroverts.

10. *The Child's Need for Privacy*

We have to warn parents against reprimanding a child in the presence of other persons and against discussing his personal affairs with other members of the family in his presence. While family conversations are desirable and a give and take between members of the family group is intellectually stimulating, this is easily overdone. A child has private affairs, public discussion of which is embarrassing and humiliating, and invasion of his privacy is damaging. Where intimate problems of the child must be discussed, it is best done by one parent, not by both together, and the child should feel free at any time to confer confidentially with either parent, secure in the knowledge that confidences will not be betrayed. We must warn also against embarrassing or humiliating a child by public expressions of affection, especially before his playmates. The privacy of life that is necessary for the development of the child into a sound person extends further than these details.

As a child grows up, there should be a steady increase in respect for his private life; the scope of topics included in his privacy should be constantly enlarged. Some parents are tempted to read a child's letters long after such invasion of privacy has become unwarranted. Mothers in especial are subject to this temptation. Interest in a child's correspondence can be made evident, so that when he wishes to consult a parent about a letter he is writing or show a letter he has received, the parent's response is adequate, and time must always be found for these confidences. Freedom of approach by the child is desirable; but prying and spying, or requiring letters to be submitted for reading, is erroneous procedure.

Putting the child 'on the carpet'—questioning him by cross-examination when misbehavior is suspected—is another invasion of privacy that is disastrous and should be undertaken only when the matter is serious and warrants putting the child in the 'prisoner's box.' In many cases, delinquencies of which you know are better overlooked than brought out in the open in this way. The development of responsibility in the child, which is essential for helping him to become a sound person, is promoted by allowing him responsibility, and this involves allowing him suitable regions of privacy.

The child needs also, as he grows, increasing privacy of space and of property. Without personal property his development is retarded or warped. Property is control of things. Toys and other chattels are not really a child's property unless control of them is vested in the child. Things he is allowed to use but does not control are merely loans. It is true that in infancy and early childhood property rights can only be partial; but control of possessions important to the child should be steadily increased, as the child learns to use and care for personal property. Both the relative amount of control and the importance of the articles controlled should be progressively enlarged. In no other way can the responsibility for property that is essential in adult life be developed.

It has been pointed out by many writers in the past that the development of moral traits depends in an important way on personal ownership of property. Unless one has property, one is incapable of expressing the generosity involved in sharing with another; and unless expression is possible, the impulse of generosity is apt to be aborted. The truism that you cannot share your crust with a hungry person unless you have a crust to share is worth thinking about. In this connection, it is important to understand that the intrinsic value of what is shared is no measure of

the generosity or of its value in character building. Sharing a crust would be a greater expression of generosity than sharing a full dinner pail. It is easy for persons who have developed selfish traits to argue that sharing should be unnecessary, in a properly organized culture, in which there would be no needy persons. This is the utilization of what we have earlier designated as impractical idealism, used as a defense mechanism. Children, above all, need the development of practical ideals, suitable to the circumstances in which they actually live.

The influence of lack of personal property on the development of dishonesty, especially thievery, was long ago noted (Proverbs, 30:9) and the young people who have been too limited in personal possessions have furnished ready soil for the propaganda that "the system of personal ownership is wrong," which many have too easily interpreted, somewhat illogically, to mean that any personal property they can steal is rightfully theirs. (This is a familiar principle in ancient Arabia, and some other oriental regions, where communism is the ancient system.)

Even a loan for temporary use by another person is an unsound procedure if one does not really own (that is, have full control of) what is loaned. Lending property that belongs to someone else has always been considered immoral and is rightfully so considered; it is, in effect, 'stealing from Peter to pay Paul.' Where a child has no way of carrying out a generous impulse but lending what he knows belongs to his parents, not to himself, he is starting on a course that, unless soon corrected, will seriously damage him. If the pair of skates or the ball bat that he wishes to share with another child are really only loaned to the child by his parents—that is, if he is allowed to use them only under restrictions as to disposal—he is acting dishonestly if he loans them without the parent's express authorization. In that case, it is the parent, not the child, who makes the loan.

Some property must be under the child's full control, subject to his own decisions as to disposal and use. If his disposition results in loss or damage of the property, he should stand the deprivation. He must learn that, if he loans his skates and as a result the skates are broken, he simply has no skates thereafter.

Frugality and economy, as well as the proper care of property, are learned only through full control of property. Using another person's property encourages wastefulness. While care and conservation of group property does not depend on private property alone, there is nevertheless a real relation between the destruction and defacement of public property, in parks, on playgrounds, on school premises, and other community places, and lack of training in the conservation of personal property.

At an early age, the child should have a monetary allowance, or budget, and be restricted, in his expenditures in certain directions, to what he can purchase from this budget. The scope of this financial responsibility should be limited at first but should expand progressively, until by the age of eighteen, clothing, books, and all other needs beyond housing and food are in the youth's personal budget. Handing out money to a child, with no accounting or responsibility, with the knowledge on the child's part that when he spends it he can get more, is not conducive to the development of sound economic life. It is well to remember that a dime may be spent as recklessly as a hundred dollars.

Control of possessions demands that a child have a place in which to keep them, secure in the knowledge that no one else will paw them over or otherwise disturb or tamper with them. This private space may be a shelf, cupboard, or drawer, but it must be *private*. Even rearranging the possessions in the process of dusting is not desirable. If the child is to learn order and tidiness, he can learn it through the duty of caring for his own space. Children who, at the

age of ten to twenty, are thoroughly disorderly, leaving their clothing scattered around for mother to pick up, are in many cases children who from the beginning have had no privacy of storage space for which they could be held responsible.

For the best development of character, each child should have a room in which he can keep his property and property loaned him by his parents, a room to which he can retire to read, play, or work when he feels the need of privacy. Ability to get away from the rest of the family is a great aid to the development of loyalty to the family and a preventive of tensions. Such provision is not possible in many families, but the lack should be considered and compensations made as far as possible through other concessions to the child's privacy.

Social life is greatly improved by the coexistence of a suitable private life. The child with reasonable privacy makes better social contacts with other children. Forced social life, with privacy impossible, does not fill the bill. If a child deprived of privacy adapts himself to the forced group life completely, that is unfortunate. He loses the ability to entertain himself and is happy only when others provide him with interests and entertainment. A child in this situation is predisposed to be a member of a 'gang,' with which he must be constantly and which will set his moral and social standards.

11. *Comparison of Children*

Some parents compare one son with another, or one daughter with another, giving the one child the notion that he is inferior to the other. He is made to feel that he is not so smart as his brother. Teachers sometimes pursue the same plan, especially if both brothers have been in the teacher's classes. The child thus compared to his disadvantage becomes discouraged and ceases to try to achieve.

Often parents are not aware of the damage they are doing to the child they consider 'inferior' to a brother or sister.

Often the inferior child is as smart as, or smarter than, the one held up as a paragon; but he is reticent and not so much of a 'show-off' as the one with whom he is compared.

Aside from direct comparison, constant belittling of a child's ability and performance is damaging. Approval of such success as a child achieves helps him to set standards and objectives toward which to work. This need not be fulsome praise, but evidence of appreciation is needed for the child's encouragement. In one case, a grandfather, who disapproved of his daughter's husband, kept telling the parents that their child would not amount to much, and this affected the child through the parents' attitude.

VARIOUS MINOR MALADJUSTMENTS

1. *The Personal and Social Criteria*

It was earlier explained that there are two criteria by which we judge responses as maladjusted: the personal criterion and the social criterion. If responses, or response habits, are disadvantageous to the person making the responses or afflicted with the habit, he is personally maladjusted. If the responses or the response habit are disadvantageous to other persons, he is socially maladjusted. Under the term *disadvantageous* we include responses that annoy other persons.

The intimate relationship of personal and social maladjustment we have explained in detail, pointing out that the distinction between the two types of maladjustment is arbitrary and that a maladjusted condition that might be called 'social' can be remedied only by removal of the disadvantageous traits of the persons who have such traits. That all social maladjustment is primarily personal maladjustment is our thesis.

We shall now turn our attention to maladjusted traits that are annoying to other persons, but which in all cases are indications of personal maladjustment. Some of these maladjusted conditions are traits of limited extent: hence we may call them *minor*.

2. *Violations of Rules*

In all cultures there are standards, and rules are established for the support of these standards. In civilized cul-

tures, and in some semicivilized cultures, there are standards of various sorts, and the rules are correspondingly varied. We have legal standards, supported by laws; religious standards, supported by rules of churches; moral standards, supported by moral rules; and standards of taste or politeness supported by rules that are sometimes called 'conventions.'

In the cultures of unlettered peoples, distinctions are not made between standards of the several types that we recognize. In the ancient cultures from which civilization developed, the distinctions between standards of various kinds were less marked than they are among us. The same shadings appear in the standards of semicivilized peoples, such as the Hindus and the Arabs. Unlettered peoples have no laws, but rules are traditional.

Violation of a law is conventionally called *crime*, of which there are two degrees: *felony* or major crime; and *misdemeanor* or minor crime. The line drawn between these two sorts of crime varies according to the laws of different states. Crime committed by a minor person is called *delinquency*, whether it would otherwise be a misdemeanor or a felony, although misdemeanors are more apt to be called 'delinquencies' than are felonies. Although the term *delinquency* more properly designates the condition of a junior criminal, the crimes committed by adults sometimes are so called. Misdemeanors committed by women are usually called 'delinquencies,' indicating that women are generally regarded as not quite adults.

Violation of a religious rule is conventionally called *sin*; but a sin is not a crime unless civil laws have been enacted that prohibit the actions involved. Moral rules are of two sorts: (a) rules which say that one must do this and must not do that; (b) moral principles, which transcend particular rules and impel to acting justly and to avoidance of injustice. Violation of a moral rule of either sort is called

immorality; but an immoral act may or may not be sinful, depending on the particular religion.

Violation of rules of good taste, or politeness, is called *boorishness*; violation of certain rules, which are not easily brought under one of the preceding categories, is called *unconventionality*.

3. *Crime and Criminals*

When criminologists discuss criminals, they are usually discussing only the small group of lawbreakers who are properly called *convicts* and *jailbirds*. This small class does not represent the larger class of criminals. Many lawbreakers are not apprehended; of those who are apprehended and brought to trial, many are not convicted. Even among juvenile delinquents, there are many who are not caught in their mischief. The traits of convicts, therefore, do not indicate the traits of the unconvicted criminals. The home condition of the juvenile delinquents who are caught are not valid indications of the home conditions of those who are not caught. Yet, a few years ago, some psychologists studied convicts of a certain type and concluded that lack of intelligence is the major cause of crime. For the convict types studied that may be true; but a survey of convicts in the prisons and penitentiaries of several states demonstrated that the average intelligence of the convicts is practically that of the average for the population outside. Murderers and embezzlers were found to have high intelligence quotients, while those guilty of 'sex offenses' were low in intelligence. Obviously the intelligence of convicts depends on the type of convict.

By the social criterion, the criminal, whether convicted or not, is maladjusted. He annoys and injures other persons. By the personal criterion, he may be well adjusted so long as he thrives; some criminals, indeed, are respected members of society. When he is apprehended and convicted,

he becomes personally maladjusted. His liberty is restricted, and he suffers a social stigma, which affects him personally.

4. *Immoral and Boorish Persons*

By the social criterion, the immoral person, whether or not a criminal, is maladjusted, since his unjust actions injure other persons. His immoral condition is by the social criterion a trait of maladjustment; but otherwise he may be well adjusted by the personal criterion. There has long been, in fact, a theory, which the psychoanalysts have adopted, that only moral persons are personally maladjusted.

The boor may not injure other persons either physically or economically; but since he is annoying to many others, he is maladjusted by the social criterion. The maladjustment of the boor, and, to a certain extent, of the immoral person, is defined by personality tests as 'extroversion.' If and when the reactions of other persons to the boor 'sink in,' and are correctly interpreted, the boor becomes personally maladjusted. The person classed as 'unconventional,' insofar as the conventions he flouts are not rules of morals or politeness, may be merely ignorant; but insofar as he deliberately or purposely violates conventions, he is an extrovert.

5. *Sin and Sinners*

Acts that are sinful may be immoral, or crimes, or both; but, as we have said, they are not necessarily either. According to the codes of Jews and Christians, profanity is a sin. In some places it is forbidden by laws or civic ordinances and thus is placed in the misdemeanor range of crime. Perjury, which seems to be what the Seventh Commandment really forbids, has been a sin for those who accept the Commandment as binding, and by law it is a

serious crime in most nations. Taking even a sincere oath is considered by Quakers to be a sin; but it is uncertain whether Jesus, who denounced oaths, considered them as sinful or immoral. I am inclined to think that Jesus considered oaths merely as silly. Many documents that once had to be sworn to now require only affirmation, but the penalty for a false statement is still the same as for perjury.

Sin itself is not a factor in maladjustment, although the results of sinful actions may be psychologically dangerous. The deadly thing, which is a result of maladjustment, a symptom thereof, and also a cause of maladjustment, is that which is sometimes called a 'sense of sin' or 'conviction of sin'; that is to say, regarding oneself as being a sinner. This might better be called an 'emotion of guilt,' since it involves disagreeable affects produced by one's thought that he is sinful.

Guilt and the emotion of guilt, however, do not pertain to sin exclusively; one considers himself guilty when he has been immoral, or sinful, or has broken a law. Objectively, we speak of a person as 'guilty of sin,' 'guilty of immorality,' or 'guilty of crime' implying not that he has an emotion of guilt, but merely that he has violated a religious precept or a moral rule or has broken a law.

Sin might be described as subjectively determined, as contrasted with crime and immorality, which are more objectively determined. An act or a thought is sinful only to the person who believes it to be sinful; thus that which one person holds to be sinful, another does not hold to be sinful. The criterion of sin is always religious, so the diversity of religious faiths produces diverse criteria of sin.

To have an emotion of guilt, whether in regard to sin, crime, immorality, or mere stupidity, is dangerous. From the emotion develops self-blame, and the affects that appear in repentance and remorse, which are weakening. Instead of conducing to better conduct in the future, repentance and

remorse make improvement less probable. Critical evaluation of one's past errors is useful, as a means of drawing from the past mistakes guidance for the future. Such evaluation should be free from the affective factors that appear in repentance and remorse. What has happened is past and cannot be changed. "What can I draw from this past that can help me in the future?" That is the important question.

In the emotions of repentance and remorse, one is immersing himself in the past, literally living in the past, amid his errors; while in critically considering one's past actions, one is thinking about the past, but living in the present by directing the results toward the future.

Many persons commit what they believe to be sins and do not concern themselves further with the matters. Others are upset by their sins, becoming preys to repentance and remorse. That the carefree sinners are in danger of maladjustment is evidenced by many of them who repent on their deathbeds, and by others who repent when threatened by grave dangers.

Revivals, in which sinners are called to repentance, appeal, of course, only to persons who believe that they are sinners. The technique of a revivalist is to produce in the sinners the emotions of remorse and repentance; in other words, to make the sinner maladjusted, temporarily at least. If the maladjustment is cleared up by the belief that the sins have been washed away, the final result may be beneficial, as it apparently is in some cases. In most cases, however, the sinner is weakened and thereafter plunges into more sin as material for further repentance. Such sinners form the habit of repenting and derive from it a pathological satisfaction. It is obvious that a person who repeatedly confesses his sins publicly is neurotically maladjusted.

It is not without significance that in psychoses of several types remorse and repentance are sometimes the outstanding symptoms. The remorse, in some cases, is over trivial

matters; but sometimes the patient has no clear notion as to the sin for which he experiences the emotion of guilt. Some say that they have committed the 'unpardonable sin,' but do not know what the sin was. We know, moreover, that what is a symptom in one case may be a cause of disorder in another.

The saying, "By man sin came into the world," has a double meaning. It is conventionally interpreted to mean that the 'original sin' of Adam and Eve was transmitted by heredity to the whole human race; in earlier pagan legends, it was the sin of the Titans, from whom the human race was supposed to be descended, which was transmitted. The other, and sounder, interpretation is that the emotion of sin is a human invention, which is certainly true. It was a disastrous invention, the development of which we can understand by tracing it historically. The concept of sin needs to be eliminated, to give more scope to the concept of immorality, as well as to remove a cause of maladjustment.

The confessional has been a useful institution for the prevention of neurotic effects of the emotion of sin. Absolution given by the priest is based, theoretically, on theological premises, but it has a sound psychological foundation. To forgive the sins is, in effect, saying to the sinner, "Well, that is all in the past. Let it be a lesson to you, but otherwise do not concern yourself with it further. You can now go ahead and do better than you have done in the past."

This is not 100 per cent true, of course, but it expresses a sound principle. Habits that have been built up are not easily broken down, but there is always a chance of eliminating them, and remorse reduces the chance. The psychologist must, in a sense, grant absolution to a patient by inducing him to stop worrying about the past and to turn his attention to the future, and by convincing him that he can improve his traits by following the principle, "Look forward, not back."

6. *Breaches of Etiquette*

Difficulties in social relations and in business relations are sometimes due to personal traits that make a person disliked. These traits are of committing breaches of etiquette of a more or less grave nature, either through ignorance, which is not always excusable, or through disregard for other persons, which is extroversion. Failure to note the conventions of the group with which one associates is a serious source of ignorance.

Among the habits that have cost many persons advancement in business or social status are the chewing of gum with mouth openings and eating or drinking noisily. Most persons have no objection to others chewing gum if it is done inconspicuously. One may even chew tobacco if he does not spit tobacco juice. Several of my friends in important positions have chewed tobacco and swallowed the juice, which may have been bad for their stomachs, but avoided offense. Inhaling soup or gulping when drinking are practices that annoy almost every person who listens to the noises.

Some rules of table etiquette are variable, as Emily Post has often said. Which hand you use for your fork depends on where you are. Eating peas with your knife is risky unless you are skilled in the game, as some old sourdoughs are; but if the peas won't cooperate with your fork, you can use your spoon in most groups.

If you yawn widely you should hold your hand before your mouth to avoid indecent exposure of your alimentary canal. The ancient explanation that the holding of the hand before the mouth was to prevent the soul from escaping during a yawn was probably developed from the practice, not the real reason for it. 'Burping' is a fault that most polite persons may commit inadvertently, but habitual

'burping' is another matter; it is a trait that offends other persons.

The habit of loud and boisterous laughter is a trait that is disagreeable to others and therefore detrimental to one who displays the trait. Of course anyone may burst out with a loud 'har-har' inadvertently, but the habit is objectionable. Men are more apt to be excused for this trait; I have heard women who laugh raucously described as "noisy so-and-sos." Loud talking is sometimes a symptom of extroversion, but in many cases it is a stupid performance of a well-meaning person.

Interrupting other persons when they are speaking is sometimes necessary, but the person who does it habitually is offensive; he may be an extrovert, or he may be maladjusted in some other way. This trait comports with the habit of elbowing and crowding other persons out of one's way and the crowding into a place in line ahead of one's proper place, habits that men seldom practice but to which women are prone.

The traits I have mentioned may seem to be little things, but they are not small in their effects on a person's status. Every trait of this sort can be avoided if one pays attention to the conventions of the group and notes the behavior of those who are socially successful. But there are other traits to be avoided. Some persons emit a spray of saliva when talking, and this is especially annoying to others; it reminds me of Shakespeare's lines: "Lay on me roses, roses, but never a spray of yew." The 'gum champers,' 'burpers,' and 'soup inhalers' would do well if they consorted only with others addicted to the same habits, but a group of saliva sprayers is too horrible to contemplate even in thought.

Halitosis has been played up in advertisements as a cause of one's being avoided, more than it deserves, but offensive body odor is another matter. Men and women who are socially unacceptable and who, in particular, are avoided

as dancing partners, are often unaware of the reasons for their being slighted. Too many persons are negligent about bathing, and perhaps do not know that any person, through olfactory adaptation, may quickly become insensitive to his own odor, while other persons still smell it.

This is not a matter of theory; there have been many cases in which lack of bathing has been a major obstacle to social acceptance. In many of my classes, in which seats are assigned, I have had requests for change of seats because of the bad odor of a neighbor to the seat originally assigned.

Tobacco smoking dulls the olfactory sense, making the smoker immune to the bad odors of which the world is all too full. Twice, after I had been for some weeks a non-smoker, I have had to rebegin the habit hastily because the offensive aroma of a waitress was spoiling my lunch. Tobacco, if smoked, might be called a 'social hormone.'

Traits that are offensive to other persons are legion; every little while another is forced on our attention. The illustrations we have given should suffice to convince anyone that he should, from time to time, take stock of his habits and determine which habits are standing in his way to success. When you are married, your husband or wife will tell you what is wrong with you; but your friends and associates will not, unless they become angry with you.

Some of the annoying traits can be remedied through negative practice. If you eat noisily or make gulping sounds when drinking, practice these habits deliberately. That negative practice could eliminate saliva spraying, we do not know.

7. Maladjusted Social Relations

Traits that are symptoms of social maladjustment not only interfere with our normal associations with friends but often interfere with securing jobs and with promotions.

One who applies for a position and in the interview with the potential employer or his representative violates the conventions of etiquette reduces his chances materially. Letters of recommendation may be required, letters from people who know the applicant well. If he has been irritating or annoying to his associates, it will be difficult for them to give him strong backing. In order to have the best opportunities in life, the conventions of the group must be observed, whether or not these conventions are those of etiquette. If you have a job, your promotion depends not only on technical qualification, honesty, and industry, but also on your relations to others in your group. Conventions of one group may not apply to other groups, especially to groups of a different social level. In a machine shop, standards of social behavior may be low; but unless you are able to meet the standards of the group to which your employer belongs, when you are in contact with him, you are out of luck.

In the commercial and industrial world, you are required to make appropriate contacts with persons of your own level and with persons of higher and lower cultural levels. A salesman in a department store, for example, is in contact with department heads and executives of various grades, with janitors, and with customers of various cultural types. Although these contacts are primarily business contacts, an understanding of the social conventions and standards of the several classes of persons is a valuable asset to the salesman. If you desire to rise, you need to pay attention to the conventions and standards of members of the class to which you aspire, even to classes of still higher levels. Among your cronies, raucous laughter and interruption of conversations may be the rule. Don't limit yourself to that level; look ahead.

It should be mentioned here that these remarks on getting ahead in the job only apply to those jobs in which your

employer and your associates have something to say about your advancement. Civil service jobs, and especially union jobs, may require nothing more of you than your presence in a stated place at certain hours; competence has little or nothing to do with advancement, and boorishness will not be a drawback unless there happen to be others with equal seniority who are pleasanter specimens of mankind. In union jobs and civil service positions, seniority is the most important if not the only factor leading to advancement. Even in Congress, the selection of Congressional committees is made not on the basis of competence, intelligence, or demonstrated ability, but on seniority pure and simple. However, anyone who is not an absolute extrovert will be happier in his job and in his social relations if he attends to the conventions of his associates and wins their respect and approval.

Every normal person is involved in groups of various kinds. Almost every person is a member of a family, parental or marital. In school, a student is a member of a school group. Many persons belong to religious groups. One may be a member of a lodge, a debating society, or a club of some other sort. Less highly organized groups to which various persons belong participate in smokers, teas, and more informal so-called 'social gatherings.' There are also business and professional groups in which most persons are members.

In some business groups, it is necessary merely to be able to make contacts with persons of various cultural levels; but in more highly organized groups it is important to *belong*—not merely to be among those present at a group meeting, but to participate in the group activities. Attending church has little social value; but working in church organizations makes one really belong and thus is helpful.

Choosing the groups of which you are to be members is as important as choosing a wife or a husband. In fact,

when you choose your groups, you have made a beginning in the choice of a mate. Membership in a church is sometimes determined by training in childhood, but there are many who are not affiliated with any denomination, to whom church membership would be helpful in establishing social relations. We often advise church membership and advise the persons to pay no attention to dogmas, but to shop around and find a congregation composed of persons with whom they would like to associate, and then join that group.

A person following this plan is not apt to join a church whose doctrines are objectionable to him, and minor differences are not important. The doctrines of most churches of the present day can be interpreted to suit the individual members, and most church members do just that. In almost every Protestant sect there are members whose doctrines are highly varied. Joining the group, as we have said, is not the end of the story; participating in the activities of the group through one or more of its subsidiary organizations (of which any important church has a considerable number) is the important thing. By making a contribution to the group activity, one receives contributions. This is true not merely of church groups; it holds for any group to which it is worth while to belong. Contribution to the group work (not mere financial contribution) is essential. In slightly different terms, the principle applies to informal groups as well.

Participation in group activities is difficult for some persons, for various reasons. Omitting consideration of physiological handicaps, such as defective hearing and stammering, which we have discussed earlier, we find a variety of habitual attitudes and disabilities. Among these are inability to remember names and faces, awkwardness and embarrassment, not knowing what to do in an emergency. Persons afflicted with such bad habits are in especial need of cultivating social relations and engaging in group activi-

ties, but, as in the case of the stammerer and the one who is hard of hearing, their social difficulties impel them to avoid group situations, or even personal relation with others, so that there is too often a vicious circle, the difficulties causing social isolation, which makes the difficulties greater.

An excuse that is frequently offered for avoiding group relations is, "I can't go to parties because I do not have suitable clothing. I am poor." In most cases, this is merely an expression of a wrong personal attitude, although there are some exceptions. If you wish to go to a party for which formal attire is required, and have neither Tuxedo nor tail coat, then, of course, you cannot go to the party. In that case, it is well to ask yourself whether you are not trying to join the wrong group. There are plenty of groups made up of decent, intelligent, and companionable persons who do not wear evening clothes. I am speaking, of course, of the males; the females are different. Women are notoriously critical of the clothes of other women, often contemptuously critical, and if a woman is not 'in style' she feels humiliated. Men are seldom interested in women's clothing, but some men dislike to appear with a woman who is not fashionably dressed, for fear other women might be contemptuous of his woman.

The standards regarding formal attire for men have relaxed very much during the last forty years. Many men wish to be comfortable rather than stylish and so do not wear formal clothes at parties where other men dress formally. There are, in fact, few gatherings in which a man would be conspicuous in a business suit, if it is a dark suit.

For informal wear, also, standards have relaxed significantly. In general, a man wears what he has; and if he likes clothing of a particular color, he wears it. Gaudy attire is still deemed inappropriate for evening gatherings, but if a man has only a gaudy suit or a gaudy combination, it usually need not keep him from a party. The groups that

have been influential in changing the standards are the college students and the Hollywood crowd.

There are, of course, group standards that cannot be overlooked. Your garb must be in keeping with that of the members of the group to which you belong or to which you wish to belong. There are certain limits to permissible individual variations. Of course, if you are 'doing all right' socially, you can 'stick your neck out' and be an innovator—at your own risk. If you have some practical reason for wearing attire that is not conventional (such as a bald head that is especially sensitive to sunburn and wind chilling), your idiosyncrasy may be respected although not imitated.

This reminds me of King Edward, the grandfather of the present King of England. When he was Prince of Wales, known then as Prince Albert, he set the styles for men in English-speaking countries. He appeared at one of the big race meets wearing trousers creased fore and aft. This was a new idea, and Prince Albert got away with it. Soon all men were having their trousers creased. Albert appeared later with trousers creased four ways, but that fashion was not adopted.

It should be said that among businessmen of the high-salaried class there is a deadly formality of attire during business hours, and some of them insist that their subordinates be also somberly garbed. After business hours, however, the moguls of business are apt to go collegiate.

Expensiveness of attire is no longer a matter of importance for men, but neatness and cleanness are other matters. A dirty suit, or one which looks as if it had been slept in for a week or so, is decidedly not an asset. On the other hand, overattention to dress, a spick-and-span or 'bandbox' appearance is considered an indication of a bad trait in a man, unless he is wealthy enough to maintain a valet. How can a man of a low economic level pay so much attention to his attire, and also give requisite attention to his work?

Most men, especially potential employers, are suspicious of a man who has the appearance of what in earlier days was called a 'dude.' I suspect that it is for this reason that many men, before putting on a clean shirt, rumple the bosom to eliminate the appearance of its having just been ironed. It may be the reason, too, for the disinclination of men to wear clothes that have just been purchased, preferring to continue wearing the old articles of attire. Here, again, women are different.

Another financial excuse is sometimes offered by fellows who have been advised to make dates with girls. These fellows say that girls require fellows to spend a lot of money on them, to take them to expensive places and buy expensive foods and drinks. The fellows say that they can't afford the expense. Now it seems that these fellows haven't met the right girls. Superficially, you might think the girls are following the advice of the 'Quaker fellow,' whom the Yorkshire farmer quoted to his son, by going where money is. This may be true of stupid girls, but a smart girl knows that a fellow who hasn't much money now may have oodles of it later and that his financial advance depends on his keeping up his social relations while avoiding extravagance.

8. *Conversational Difficulty*

Some persons, chiefly young men, offer as an excuse for avoidance of social relations the complaint that they are unable to maintain their parts of a group conversation. This inability, when not due to stammering or to defective hearing, is a product of an erroneous attitude, usually combined with erroneous evaluation of practical group attitudes.

For such persons we find it necessary to emphasize two facts. First, that the difficulty is accentuated by attention to it and by a strong effort to talk. "Take it easy," we advise, "don't worry about it." "But how can I take it easy when I am really tense; and how can I stop worrying

about my difficulty?" are the questions then asked. Well, you can't do it by 'will power,' but many have found relief through negative practice, which can be self-directed.

We advise these persons as follows: "Go to a social gathering, and instead of making an effort to talk, make an effort to refrain from talking. Say 'yes' and 'no,' and 'how do you do' and use other stereotyped phrases, but otherwise refrain from talking unless you find yourself with something you want to say. Then burst out." For some who have followed these instructions, the bursting point has come from twenty minutes to half an hour after the effort to refrain from talking has commenced. From there on the talking difficulty is lessened.

The second fact we emphasize is that in any group in which there are voluble talkers, good listeners are appreciated. We advise the worrier to keep his eyes and ears open, and he will find that those who talk little are by no means liked less than are the garrulous and are no less at ease in the group. We tell him to note that when the taciturn person does say something, the others are apt to listen to him, since they have found out that when he does speak, it is because he has something to say.

When one discovers that he doesn't have to talk much, his effort to talk decreases. He is more at ease, and his worry decreases progressively. Shortly, he discovers that with his new ease and freedom from effort to talk he is actually talking more than he was when he was tense with effort and worrying about talking.

9. *The Boy and Girl Relationship*

Many fellows report that they are not at ease with a girl. One takes a girl out and has nothing to say to her. The more effort he makes to start conversation, the more tongue-tied he is, as we would expect. He worries about this before he takes the girl out, which sets him for speech trouble, and

he worries about it afterward, which confirms his nonconversational habit for later occasions.

A boy may report that he can't take a girl out unless she is a petter; if he can pet her, he doesn't have to talk. When he is in a situation from which petting is excluded, he is sunk. I suppose that some girls find similar difficulties in carrying on conversations with boys, but the girls keep their mouths shut about it; at least all reports made to me have been from males.

Different factors are involved in different cases, but any male in such a condition is forming a habit that will cause him trouble later. When he marries and all he knows about what to do with a woman is to pet her, what will be his situation when the honeymoon is over? How is he going to maintain living relations with his wife? Many marriages break up on this rock. Strange as it may seem, if one's relations with his wife are restricted to petting, petting loses its attractiveness before long. If the marriage does not eventuate in divorce, the pair settle down to the sordid marital life of many couples, who become estranged and who, although they may have sexual intercourse of a mechanical sort in bed, have no real love life and develop nothing of the complex relationships between a man and a woman that we sometimes call 'spiritual.'

The conversational difficulty, in its premarital stage, may be an indication that you are going with the wrong girls (or boys)—wrong for you, that is. If a boy and a girl have no common interests that could furnish a practical basis for conversation, both are obviously 'off on the wrong foot.' Of course, it may not be so bad as that. If not, make it a point to determine what the interests of the other person are and develop an interest yourself in those topics. It is possible, of course, to develop the interest of the other person if you go about it sensibly, avoiding the attempt to force his (or her) interest. By intelligent procedure, based

on unselfishness and not overdone, you may assist in another person's development. By respecting the interests of another person, common interests are developed.

In many cases the situations are simpler than those to which we have referred. Embarrassment and awkwardness may be the actual obstacles to social relations between the boy and the girl. Here, also, the principles that are useful in group relations are applicable. Stop making an effort to talk; gabbling isn't necessary, and conversation should be allowed an opportunity to develop normally. Dancing is a help; when you are dancing with a girl you don't have to keep up a stream of talk. If you have something to say, say it; if and when you have nothing to say, just dance. If you are a good dancer you don't need to talk. If the girl doesn't like to dance with you when you are not entertaining her with a flow of language, the reason is obvious. Take dancing lessons and improve your dancing. In any event, ceasing the tense effort to be entertaining is the most important step toward becoming a reasonably good conversationalist.

10. *Use and Abuse of Alcoholic Beverages*

Drinks containing alcohol have been used by man in various parts of Europe, Asia, and Africa since remote times. Three beverages are ancient: wine, beer, and cider. Ancient peoples had no distilled liquors, since apparatus for distilling was not invented until about the beginning of the Christian Era. Wine, in the proper sense of the term, was probably first made in Asia Minor or some other area of the Levant, since the wine grape (*Vitis vinifera*) seems to have come from Asia. Wine of proper type is the fermented juice of the grape, and only grapes of the *vinifera* family make good wine. American grapes, which have been developed from native wild grapes, make terrible wine, which is tolerated only by persons who are unfamiliar with good

wines. There are beverages known as 'elderberry wine,' 'current wine,' 'blackberry wine,' etc., but prefixing such words to the word 'wine' has the same neutralizing effect as does prefixing 'Bronx' to 'cheer.'

Beer was invented by Africans, probably in Central Africa, whence it was introduced into Egypt, and from Egypt into Europe. The Negroes made beer by fermenting bread in water, and this practice was continued in Egypt for a long period. When and where the malting of grains to make beer and ale was discovered we do not know; but it was probably in some European country, and late in the Christian Era. Cider may have been invented in Europe, since apple trees were indigenous in northern Europe, but this is a guess.

Drinking of wine, beer, and cider has had, through the ages, certain disadvantageous results. Beer and other malt beverages are fattening, or rather bloating, if consumed in large quantities persistently. These beverages are said by medical experts to have other detrimental physiological effects. Wine, if drunk in large quantities, produces intoxication, which we call 'drunkenness.' Incredible as it may seem, the Greeks sometimes got drunk on wine that was diluted with water, the usual proportion having been half water and half wine, although sometimes a greater proportion of water was employed. One can understand such mixtures making the drinker sick, but to get drunk on it requires an enormous consumption. The ancient Greeks considered unmixed wine (which in the Old Testament is called 'strong drink') to be poisonous, and, from what I know about Greek wines, I would say they were right.

It is possible to become intoxicated by drinking hard cider, but the resulting 'hang-over' is said to be very unpleasant and discouraging to most drinkers. We have heard that persons get drunk on beer, but we have never known anyone who was able to drink enough to become drunk.

Certain persons have become 'stewed' by drinking ale but required four quarts to produce that effect. In England, before the war, there was a malt beverage called 'barley wine,' which was highly intoxicating; but how it was made we do not know. Distilled liquors, of course, are more intoxicating than wine, beer, and cider, since the alcoholic content of whisky, gin, and brandy varies from 40 to 50 per cent (80 to 100 proof).

Intoxication usually involves a state of incompetence, physical or mental or both. Short of intoxication, alcoholic beverages produce various affective states, such as excitement, exhilaration, euphoria (feeling of well-being), and restfulness. Normal inhibitions are reduced; the mildly alcoholized person goes ahead and says what he wants to say and behaves as he desires to behave. A moderate amount of alcohol improves motor coordination, but the lowering of inhibitions makes the person reckless. A driver who has one or two shots of whisky can control his car very well, but he is a dangerous driver, because he is apt to attempt to perform stunts that no driver should try.

Susceptibility to the effects of alcohol varies from person to person, and in the same individual the susceptibility varies with the organic condition of the person. Fatigue and physical weakness increase the susceptibility, and drinks taken on an empty stomach are more deadly than are drinks taken with, or after, a meal. There are no sex differences in susceptibility to alcohol, so far as our information goes; although some observers have expressed the opinion that women have, on the average, 'stronger heads,' as the phrase is, than men have.

Removal of inhibitions by alcoholization permits concealed desires and tendencies to appear. This is the meaning of the Latin phrase *in vino veritas* (in wine, truth). The quarrelsome person may inhibit his tendency in sober life, but when even mildly intoxicated his trait is manifested,

while the person of a sad disposition 'weeps into his beer.' Other traits that are usually inhibited by individuals crop out under the influence of alcohol, traits such as cruelty, talkativeness, obstinacy, and erotic inflammability. Kindly and benevolent individuals become more kindly and benevolent when alcoholized to a light degree. The universal effect is a lowering of discretion and of soundness of judgment, which makes the alcoholized person reckless.

There is, of course, no sharp line of demarcation between the slighter and the more serious effects of alcoholization, and the combinations of mental and physical deficiencies vary from person to person. Some persons remain clear-minded while losing control of motor coordinations, and others retain motor control while becoming mentally incompetent. Those who lose either motor control or mental competence we describe as 'intoxicated' or by any of the long list of terms in the vernacular which are applied to intoxicated persons.

The prevalence of drunkenness has led some persons to favor the abolition of alcoholic beverages *in toto*. It is true that if there were no alcoholic beverages there would be no drunkenness, but it is equally true that if there were no drunkenness there would be no need for the prohibition of alcoholic beverages. Some have advocated the abolition of distilled liquors, while permitting the sale and use of beer and light wines. The brewers and winegrowers would favor this plan, but the distillers have enough influence to prevent its adoption. The other obstacle to the plan is that the public wants its liquor, and, while beer can be drunk at any time, light wines are suitable only with meals, and few drink them at other times. In fact there is so little drinking of light wines in the United States that a large percentage of the population do not even know what they taste like. The statement often made, "I don't like wine; it's too sweet," indicates a person who has never made the ac-

quaintance of light wines that are not sweet and which are limited to alcoholic contents not exceeding 12 per cent, whereas sweet wines vary from 18 to 20 per cent in alcoholic content.

The problem of drunkenness is still with us. Few people have approved of drunkenness, for it is obvious that the drunken person is maladjusted to his environment—both his social environment and his physical environment—and, since he is dangerous to other persons, his intoxication raises a serious social problem. There have been many drinking songs composed, some of which have been written into grand operas and light operas and have attained high popularity. None of these famous drinking songs has praised drunkenness or has suggested that one should get drunk. These songs praise drinking as a promoter of good fellowship, as a producer of euphoria, and in the one in *Robin Hood* it is sung that “brown October ale” will “make you stout and hale”; but the idea implicit in all the songs is that one doesn’t get drunk.

The only songs in which drunkenness is praised are the ditties sung by callow college students, ditties to which many persons have objected because of that feature. It has occurred to me recently that perhaps the singing of such songs is a form of negative practice, or, as Aristotle called the principle, ‘catharsis,’ but I am not sure of this.

The question of maximal importance is: Why do persons get drunk?

In some cases, drunkenness is accidental. The drinker has taken more drinks than he had intended, or he has wrongly estimated his tolerance of alcohol or has misjudged his physical condition. Such accidents do not constitute a major part of the problem of drunkenness, for persons who do not want to be drunken learn how to avoid the misfortune. The real problem concerns those who want to get drunk and who drink with that objective in view.

In some cases, the desire is of the infantile type. The person has discovered a new experience and wishes to repeat it, just as a child wishes to play with a new toy or sniffs repeatedly at a foul odor. I suppose drunkenness among collegiate students is of this infantile type. Such persons need to grow up and develop more adult interests and objectives. In some cases the desire to get drunk is a result of boredom (nothing to do but get drunk), because when one is drunken the feeling of ennui is eliminated, temporarily at least.

Undoubtedly the drunkenness among ancient peoples was produced by ennui. Entertainment was not abundant; there were no movies or radios. At night, in especial, there was little to do, so they drank to pass the time away. So far as we can judge from ancient literatures, there was no desire to get drunk, but desire to keep on drinking, although the drinkers were aware what the results were apt to be. The real desire, in short, was to keep on drinking without getting drunk.

It is to be admitted that there are pathological cases in which there is a craving for alcohol; such individuals do not drink to get drunk, but drink to satisfy their craving. Most alcoholics in modern times drink to 'forget' something. The alcoholic addict is usually in an unpleasant situation that he does not know how to rearrange or that he is not willing to face. If a man does not get on with his wife, home is an unpleasant place for him. He may be unwilling to separate from his wife, for one of a number of reasons. So he takes to drink, and when he is under the influence of liquor he stays away from home and forgets his distressing marital situation. He may drink heavily without becoming drunk to the extent of being incoordinated or mentally confused, but most of such alcoholics deliberately get drunk and stay drunk for days. His business or his profession suffers, and his marital situation is worse when

he sobers up. He may seek aid to escape from his alcoholism, but, when a psychologist probes into his case and finds the real problem lying behind the drunkenness, he is unwilling to face the problem like a man and do something to solve it. It is easier for him to ignore the problem by drinking to excess. Women afflicted by problems they are unable, or unwilling, to solve often take to drink. This is never a real 'out' for the drinker, except that the person, whether man or woman, is eventually 'down and out.'

11. *Some Linguistic Maladjustments*

Language often degenerates into swearing, cursing, profanity, blasphemy, and/or obscenity. These terms are not interchangeable, and we shall consider them separately.

A. Swearing. Swearing, which is also called 'taking an oath' or 'making an oath,' is a verbal process of calling upon some power, entity, or fictitious person to attest or witness to the truth of a statement. Ancient people swore by Zeus or by some other power or divinity. In modern times, men swear by whatever they understand the word *God* to mean, or by some fiction such as 'gosh' or 'jingo.' Saying 'by gosh' or 'by jingo' is, in form, swearing, whether or not the intention is humorous. Swearing falsely—that is, calling upon a divinity to attest a false statement—is *perjury* and perjury if committed in a legal document or on the witness stand is a punishable offense in all countries.

Jesus denounced the making of oaths, for reasons which are sound. Quakers refuse to take oaths, saying that he who takes an oath implies that he tells lies when not under oath; any person, by the laws of most states, is allowed to affirm statements instead of swearing to them. The point of importance is that anyone who is willing to make a false statement regarding an important matter would be willing to swear to the statement. The saying of Jesus (Matthew 5: 34-37) can be interpreted in this light, as meaning that

making an oath is silly. No sensible person believes the statement of another merely because he swears to it.

In ancient times it was believed that when a divinity was called upon as a witness to the truth of a statement, the divinity took note thereof and punished the offender who swore by him to a false statement. Thus, the third commandment is "Thou shalt not take the name of the Lord thy God in vain, for the Lord will not hold him guiltless that taketh His name in vain" (Exodus 20:7). That this commandment was understood as a ban on perjury is made clear by the briefer phrasing in the New Testament: "Thou shalt not forswear thyself" (Matthew 5:33). In modern times, on the other hand, few persons, if any, believe that divine punishment would be greater for a false statement made under oath than for the same statement unsworn.

Oaths in the English vernacular that do not seem to be appeals to a divinity are substitutions for, or modifications of, earlier oaths in which a divine name was mentioned. The derivations of 'by golly,' 'by gosh,' and 'by gum' are obvious. 'Gadzooks' and other oath forms are derived from oaths that were prevalent in the Elizabethan era. 'By jiminy' is a corruption of the oath 'by gemini,' the twin gods to whom pagan sailors appealed for witness.

Oaths degenerated early into mere marks of emphasis and continue to be employed in that way. The statement, "This is all wrong!" seems more emphatic when it is sworn to, whether the oath is by a divinity or by gum, gosh, or jiminy. In most cases, however, the swearer is merely exhibiting a speech habit, interlarding his language with oaths, with little regard to emphasis or to sense. This habit is a symptom of weakness in construction of language, a habit developed by persons who are inept in verbal expression and who use oaths as substitutes for intelligent speech. The habit is similar to that of the drawler who would say, "I-ah-think-ah-this-ah-is-ah-all-ah-wrong."

B. Profanity. Profanity is speech or behavior involving disrespect for something that is considered as sacred or holy. One may profane a holy place by disrespectful behavior therein. Verbal profanity is the use of a divine name in a way that is irrelevant and so is irreverent, as in interjecting a name of a god into a conversation that otherwise does not involve any religious feature. Oaths made casually, not with solemnity, are profane for Jews and Christians.

We distinguish, therefore, three types of oath: (*a*) solemn oaths, such as those administered to a witness in court or made in attesting legal documents; (*b*) profane oaths, in which there is no real calling upon the Divinity as witness to the truth of a statement; (*c*) jocular oaths, in which the entity sworn by is not considered as sacred in any sense. Quakers, however, refrain from oaths 'by jiminy' and 'by gosh,' since these involve, through their derivations, reference to the Divinity. Profanity, however, includes much more than profane swearing. Profane persons sometimes justify their verbal profanity by alleging that they do not believe in the Divinity whose name they freely use; overlooking the fact that other persons do believe in the Divinity, as an ideal if not as an entity, and may be offended by the irreverent use of the name. That offending other persons is detrimental to the interests of the profane person is a point he should consider.

Verbal profanity, of course, is an indication of inability to formulate adequate verbal expressions, an evidence of a speech weakness. In any case it is detrimental to the profaner; the habit may well be considered as a maladjusted trait of an infantile type. The habit may be formed in youth from the childish trait of deriving satisfaction from the doing of something mischievous and daring, like breaking windows and minor thievery. The satisfaction derived

from doing something shocking or annoying to other persons apparently persists into adult life.

C. Blasphemy. Blasphemy is not separated from profanity by a sharp line: some dictionaries, in fact, identify blasphemy and profanity, and many persons hold that all profanity is really blasphemy. Although the etymological derivation of the term is obscure, blasphemy is generally understood as meaning reproaching or reviling a divinity, ridiculing a religious doctrine, or making light of an object considered by other persons as holy. For example, one who expresses the opinion that Jesus was a mere man or that he is a character of fictional legend, is considered by orthodox Christians to be guilty of blasphemy, and in earlier periods such persons were burned at the stake or otherwise executed.

D. Cursing. Cursing originated as a means of working injury to some person, or some group, through use of a verbal formula or incantation. Various formulae were devised for such injury and were applied to the crops and other properties of enemies or persons who were hated. The habit of cursing inanimate objects still persists, along with the cursing of situations and events, but originally the object of a curse was a person or a group of persons, their possessions and aptitudes being cursed as an indirect means of injuring the persons.

Cursing is not necessarily profane, nor does it essentially involve swearing, although in the vernacular 'cursing' and 'swearing' are used as interchangeable terms. These terms are really names for different verbal formulae; if you say "by gosh," you are swearing, but not cursing. If you say "darn you" or "doggone you," you are cursing someone, not swearing at him. Curses, whether profane or not, are mostly means of expressing disapproval, scorn, contempt, or hatred of a person, event, or thing. Like profanity and swearing, cursing is a substitute for significant speech, and

a person who interlards his speech habitually with stereotyped curses is commonly considered to be stupid. Intelligent persons who are well adjusted reserve their swearing and cursing, whether profane or not, for statements in which special emphasis is intended. Habitual cursing and/or swearing causes the expressions to lose significance; since when everything is emphasized nothing is emphasized, the habit merely puts every statement in italics.

E. Obscenity. Obscenity is reference to erotic, genital, or reproductive matters in a jocular or sneering way or in circumstances in which the reference is irrelevant. In modern languages there are certain terms that are reserved for obscene usage, while in serious and appropriate discussions, other terms are employed to designate the sex organs and sexual processes. Whether or not there were obscene terms in ancient languages, such as Greek and Latin, we do not know with certainty, but there probably were such terms in all ancient languages. The technical terms, however, may also be used obscenely, for obscenity is largely a matter of intention. One who intends to be obscene can be obscene whatever terms he employs.

One might wonder why certain terms are considered obscene, while other terms that mean the same things or processes are not obscene. The explanation is that the vulgar terms are associated generally with obscene intentions. Furthermore, setting aside certain terms for obscene usage makes obscenity more conspicuous; thus the use of vulgar terms for the male and female genital organs, or for the process of coitus, labels the intention of the user of these terms to be obscene. Words are sounds used conventionally, and the meanings of words include more than the designation of objects, processes, and events. The 'attitude' (whatever that word means) of the speaker or writer is conveyed by the terms he employs. An illustration of this is the word 'bloody,' which for the British is an obscene

term, whereas for Americans it is not obscene. If an English newspaper prints the expression "bloody hell," its most daring form is "b——y hell," whereas a conservative American newspaper would print it as "bloody h——l." The explanation is that in Britain the word 'bloody' is understood not as referring to blood in general, as from a nose-bleed or a wound, but as referring specifically to menstrual blood.

The use of a term that is not itself obscene, as a substitute for a more vulgar term, is considered humorous by persons who know what the obscene term is. Thus, it was deemed humorous a few years ago to refer to the human posterior as 'fanny,' while the vulgar term for that region would have been considered obscene, not humorous.

Jokes and anecdotes which we call 'smutty,' jokes and anecdotes describing erotic processes or referring to genital organs, are especially comical to some persons. The pleasurable factor is, in part, an additional erotic feeling; in part the idea, or the hope, that the anecdote will shock some persons, to whom the person who is not shocked accordingly feels superior, and the feeling of superiority is the essential factor in humor. This is perhaps responsible for Freud's doctrine of humor as due to 'unconscious' erotic desires, for Freud's psychoanalytic interpretations were based largely on verbalisms, especially on words of vulgar meaning.

Disgusting references and anecdotes that shock some persons are often humorous to persons who are not shocked; they feel superior to those who are shocked. Relating a disgusting anecdote at the table, and thereby ruining someone's meal, is especially funny to some persons.

Obscenity, like cursing, swearing, and profanity, becomes a mere use of stereotyped expressions among members of certain classes and groups. British workmen are apt to preface every noun or substantive clause with two adjectives, one of which is 'bloody' and the other unprintable. These

descriptive terms are used without discrimination, for they are employed to describe situations and persons of which they approve and are also applied to persons or situations of which they disapprove. This tendency of disordered language habits to become mechanized, so that the expressions become meaningless, is common to all the maladjusted language traits of which we have been speaking. That these linguistic vices develop as substitutes for significant speech, and are traits of persons who are relatively stupid and educationally maladjusted, is a fact that should be obvious.

*PSYCHOANALYSIS, ITS FOUNDATIONS
AND APPLICATIONS*

1. *The Origin of Psychoanalysis*

The invention of psychoanalysis (also written psychanalysis) is credited to Sigmund Freud, a Viennese psychiatrist who died a few years ago. There is, however, little that is new in Freud's system. Most of the theories and superstitions on which psychoanalysis was founded were extant some centuries before the Christian Era. Freud was the founder of the first system to be called 'psychoanalysis,' but subsequently a variety of psychoanalytic sects appeared, diverging from Freud's original doctrines. Among these divergent schools or sects are those of Alfred Adler and C. G. Jung. These men were initiated into the mysteries of psychoanalysis by Freud, and when subsequently they set up their rival systems, Freud denounced them as ingrates. Freud expected his students to accept his doctrines without questioning them or criticizing them. This requirement of blind acceptance of doctrines was not confined to Freud and had not ceased in Europe up to the beginning of the present war. Pavlov required it of his assistants, as did Wundt earlier. The assistants knew what results they were expected to obtain from their investigations, and one American student in Wundt's laboratory deliberately changed his data in order to make them agree with Wundt's principles. In European universities, for a student to question or to criti-

cize the opinions of his professor was suicidal, so far as his professional career was concerned.

There are two basic postulates involved in Freud's system. The first is the postulate of a mental energy, called the *libido*, which Freud conceived as fundamentally erotic. Since the term 'sexual' is employed in psychoanalysis in a comprehensive way, meaning erotic, genital, parental, filial, etc., according to the caprice of the psychoanalyst at the moment, Freud's hypothesis of the libido was called the 'pansexual theory.' Freud announced his 'pansexual theory' as the most important discovery of modern times and compared it with the discovery of the sources of the River Nile—a comparison that might well be psychoanalyzed by applying Freud's system of symbolism.

Freud's postulate of the libido is somewhat inconsistent with another of his postulates, namely, that desires, or, as he sometimes called them, 'ideas,' have energies and exert their energies. This notion that ideas exert energies was developed by French philosophers in the eighteenth century, as the theory of *idées forcées*. The notion was adopted in a modified form by Janet, with whom Freud was associated as a pupil of Charcot and from whom Freud derived many of his ideas, which derivations he admitted at times and denied at other times. Janet did not consider the energies of mental sorts to be comprehensively erotic, but his notions about mental energies are both confused and confusing.

Freud followed the old German psychological theory, adopted and expressed by Wundt, that ideas and other items of content of consciousness are entities, which Wundt described as 'psychic objects.' From the point of view of the old German psychology, an idea might well be assumed to exert energy, as the French philosophers did assume. The inconsistency of the general libido, and the energies exerted by specific ideas or desires, was not cleared up by Freud. He may have meant that the energies of ideas

are particular manifestations of the general libido, but he did not clarify the point. The apparent inconsistency is one of many which are involved in psychoanalysis, and we may ignore it.

(2) The second major assumption of Freud was that of an 'unconscious mind,' or, as it is often called, the 'unconscious' (also known as the 'subconscious mind' or 'the subconscious'). This is an ancient postulate, as we shall explain later. At the time in which Freud and Janet were working under Charcot, the notion of the unconscious was quite popular; it had been introduced into modern philosophy by Von Hartmann, who derived it from Schopenhauer. It was adopted by literary men and poets, and an excellent presentation is to be found in Sidney Lanier's poem, "The Marshes of Glynn."

Janet for a time accepted the postulate of an unconscious mind, or an unconscious stratum of the mind; but Janet soon abandoned the postulate as being of no value to psychiatry or abnormal psychology. Whether or not Freud would have included the notion of 'the unconscious' in his system if he had not been influenced by Janet is a question that cannot be answered.

The assumption of an unconscious division of the mind is accepted by all sects of psychoanalysis and may well be considered to be the determining feature of the faith. To reject the notion of the unconscious is to reject psychoanalysis *in toto*, since all psychoanalysts accept that postulate as basic.

— Freud developed his theories for application in psychotherapy primarily in the treatment of hysteria, which in the period of Charcot, Janet, and Freud was having a great vogue. Cases of hysteria appeared in great numbers in that period, although they are rare in the present era. Freud tried at first to follow the methods of Charcot and Janet, who employed hypnosis in the therapy of hysteria, but Freud was a poor hypnotist and abandoned that form of

psychotherapy. It is probable that the great success of the Swiss psychiatrist Dubois, who employed psychological analysis in the treatment of neurotics, caused Freud to look in that direction. At any rate, he combined Dubois's system with the concept of the unconscious, although Freud's methods were more mechanical than those of Dubois—that is, less psychological. By the combination, psychoanalysis was created, and the libido was shortly added to the mess.

The scope of psychoanalytic applications was soon extended. The extension was due to the influences of men who came to Vienna to learn the psychoanalytic technique, men who were interested in various fields other than that of psychiatry. An old theory, which we can trace back at least as far as the beginning of the Christian Era, was revived, the theory that religion is a product of unsatisfied erotic desires or the frustration of erotic desires. The applications of psychoanalysis were soon extended to the fields of art, literature, politics, and, eventually, to mathematics. Through the influence of certain of Freud's associates, myths and fables were explained psychoanalytically. During Freud's period, the concepts of *totem* and *tabu* were occupying the attention of anthropologists and mythologists, and Freud plunged amateurishly into that field.

Twenty-five years ago, when psychoanalysis was somewhat new, and it seemed possible that it might make some contributions to psychology, I spent much time and energy in studying its literature. I desisted, before long, because the appalling confusion appearing in that literature, the absurdities involved, and the constant change in theories were too much for me. I published a book, of small size, with the title, *Mysticism, Freudianism and Scientific Psychology*, which antagonized the psychoanalysts satisfactorily. Certain reviews were very entertaining; they said, in effect, that I did not understand psychoanalysis. One reviewer claimed that while all my points were validated by quotations from psychoanalytic authorities, if I had read further

I would have found the same author saying the exact opposite, which was true. Even Freud abandoned his pan-sexual theory officially, although he never really abandoned it.

I remember one monograph, written by one of Freud's associates, which was the height of infantilism. Small girls, he said, were interested in the tale of Cinderella because they had unconscious desires to go to balls and be courted by princes. In astonishment I began to question children concerning their interests in this and other tales, but I found none who were not consciously aware of the bases of their interests.

Speaking of the application of Freudian symbolism to the interpretation of literature reminds me that I once made a burlesque Freudian interpretation of a number of Mother Goose rhymes and showed them to an eminent psychoanalyst friend of mine. I had thought it would annoy him as much as Spike Jones's burlesques of highbrow music annoy some serious persons. He read the burlesques through, handed them back to me, and said, "You really have a good thing there, if you only had sense enough to know it." In other words, my burlesques were no more burlesques than were the interpretations put out seriously by psychoanalysts.

Our first concern with psychoanalysis should be with the concept of the unconscious mind, after which we shall proceed to more practical problems. With the eventual division of the unconscious into various parts—the id, the fore-conscious, etc.—we need not be concerned.

In psychological usage, which is in agreement with the most common vernacular usage, the significance of the noun *consciousness*, the adjective *conscious*, and the verb *to be conscious* are definite. *Consciousness*, of course, is an abstract term, deriving its significance from the verb and the adjective.

Although the term *consciousness* was once used to designate the content of consciousness, in modern psychological usage, the term *to be conscious*, as in the vernacular usage, means 'to be aware of something,' not 'something of which one is aware.' The term is applied to persons mainly, although it may be applied to lower animals, but it is never assumed that inanimate objects can be conscious. Similarly, the adjective *conscious* is only applied to persons or to animals. The verb is in the passive voice but is applied to processes carried on by the individual persons or animals, processes that are nowadays included in the category of *responses*. If we speak of a person's consciousness, we are referring, in that abstract way, to a person's conscious responses. We might agree that there ought to be an active verb to replace the passive verb *to be conscious*, but there is no such active verb. Being conscious, it is generally agreed, includes thinking, sensing or perceiving, and feeling. These terms, curiously enough, are participial forms of the active verbs *to think*, *to sense*, *to perceive*, and *to feel*.

If we use the adjective in its inclusive sense, we say that a person is 'conscious' if he is perceiving, thinking, or feeling. If we say that he is 'unconscious,' we mean that he is not making any of those conscious responses. In case of doubt, when we assume some conscious processes but do not know the type, we may say that the person is 'partially conscious,' or 'almost unconscious.'

At any particular time, we assume that a person may be conscious of certain things or events but unconscious of certain other things or events. At one moment I am conscious of the persons and the furniture of the room, but not conscious of the blackboard behind me. The next moment I am conscious of the blackboard by thinking about it, and by turning around I can be perceptually conscious of the blackboard.

One can think of things that he has seen or otherwise

perceived in the past; this we call *reproductive imagination* or *repetitive thinking*. If one is aware of past things or events as *being past*, we call the process *remembering*, or abstractly, *memory*. One may think, also, of things or events which are not yet in existence, or which have not yet occurred, as the inventor thinks of a gadget that he expects, or hopes, to invent or as you may think of what you are going to do when a class session is ended. Such thinking we call *anticipation*, or *anticipatory thinking*.

From the psychological and common-sense points of view, it is obvious that being conscious of an object or an event is not restricted to perception, to situations in which sense organs or a sense organ is stimulated. On the other hand, the fact that there is actual stimulation of a sense organ does not ensure that one will be conscious of the object or event corresponding to the stimulation. What are conventionally called 'signs of depth' in visual perception are due to stimulations of the retina and of the receptors in eye muscles, of which a person may learn to be aware; but in normal vision one must be unconscious of these signs. In the integrative process of being conscious, the total stimulus pattern is effective, but one is seldom conscious of all the items that furnish the stimulations. This selective nature of the process of being conscious is described in the vernacular, and also in psychological terms, as a matter of *attention*.

We have, in English, no term for items of which a person is not conscious, a lack that has led to some confusion. What about the blackboard when I am not perceiving it and not thinking about it? We can say that I am not conscious of it or that it is not a content of my consciousness. That is the only description we can employ. In German, there is an adjective, *unbewusste*, which can be defined as 'pertaining to the condition or situation of something of which one is not conscious.' We might use, in English, the word *uncognized*; but there are various meanings of the

terms *to cognize* and *cognition*, which might carry over to the term *uncognized*, so that in any use of the negative term we would have to explain the exact meaning in which it is intended. To call the blackboard 'unconscious' when no one is perceiving it or thinking of it does not make sense, since we do not assume that the blackboard is conscious even when someone is perceiving it or thinking of it. Inanimate objects, it is assumed, cannot be conscious.

The German term *unbewusste* could have been employed to clarify statements, but the abstract noun *bewusstseins* is used in German both for consciousness and for the state of that of which one is conscious, which we call the content of consciousness, and the negative term *unbewusstseins* is similarly used to designate unconsciousness and also that of which one is unconscious.

Consciousness means literally 'knowing with or together.' William James interpreted this as meaning merely the integrative feature of conscious responses; that we perceive, think, or feel total contents; and that perceiving, thinking, and feeling do not occur as such, but are analytical artefacts abstracted from the total response, which is in reality none of them. This fact, familiar to American psychologists since James, was partially rediscovered eventually by German psychologists, who, by inventing a group of new terms, then produced new 'schools' of psychology.

That James supposed the meaning he gave the term *consciousness* to be the original meaning is improbable, for James undoubtedly was familiar with the writings of Sir William Hamilton, who explained the earlier meaning in detail. Hamilton's conception of the meaning of the term was that no process should be called 'conscious' unless it involved awareness of something, and also awareness that one was aware of it, in the same process. In modern psychology, we do not use the terms 'conscious' and 'consciousness' in the Hamiltonian sense, but mean by it any process

of being aware, whether the process is called 'perceiving,' 'thinking,' or 'feeling.'

There are, however, some indications that psychoanalysts use the term 'conscious' in the Hamiltonian sense or at least are confused by the early meaning of the term. Hence they may use the word 'unconscious' to designate any awareness of content that does not combine the awareness of being aware of the content. Our rejection of the Freudian 'unconscious,' accordingly, would be a logical result of our rejection of the Hamiltonian and Freudian 'conscious.'

2. *Various Meanings of the Term 'Unconscious'*

A. Something felt, perceived, or thought of, but not remembered later, is said to have been 'unconscious.' Elementary psychology has taught you that this conclusion is fallacious. You make many responses that you do not remember, and failure to remember a response is not a valid indication that the response was unconscious when it occurred. Retrograde amnesia is not confined to pathological cases, but is a common feature in the lives of normal persons.

B. The unexplained, or inexplicable, is sometimes called 'unconscious.' One does something, thinks of something, or feels a certain way but does not know how he came to do, think, or feel as he did; so he says he acted, thought, or felt 'unconsciously.' Sometimes one *can* recall the idea that by association brought up another idea, but in many cases the penultimate idea is not recalled; however, to say that the idea was unconscious is to say that there was no idea.

C. Impulsive actions are often described as 'unconscious.' "I unconsciously turned to the right" means that the speaker turned without a definite plan or purpose of turning. Such actions could better be described as 'impulsive'—without purpose, without plan, or without intention.

D. In another usage, unconscious means 'inattentive,' but

does not indicate absence of consciousness. As we have pointed out, a person may be attentive to one item while inattentive to other items. The statement, "I walked unconsciously along the street, thinking of something else," does not indicate that the speaker walked in an unconscious condition, nor even that he was unconscious of his walking. The statement might be transformed into, "I walked inattentively," which leaves the question, "Inattentive to what?" The statement should be, "I was thinking, and not attending to my walking process." We often come across statements that appear to imply unconscious seeing or hearing, when the actual meaning is inattention to certain visual items or inattentive perception of certain sounds. Attention is always selective, and attention to one item usually precludes attention to other items. To call such inattentive perceiving 'unconscious' is a confusion of meanings.

E. Behavior is often described as 'unconscious' when the reactions are automatic; that is, are so habitual that no process that could be called 'thinking' intervenes between stimulus and the motor result. Such automatic actions are really terminal features of responses that may be either perceptual or ideational. Thus, if one person makes a movement to strike another, the attacked one may automatically put up his hand to ward off the blow or may dodge automatically. No thought, such as "he is attacking me" need occur before the defense movement. To describe such a response as 'unconscious' would be to imply that all habitual perceptual responses are unconscious, from which starting point it would be consistent to proceed to the assumption that all conscious processes are unconscious.

F. Another common usage of the term 'unconscious' comes close to the original meaning of the term. In the Hamiltonian meaning of the term 'conscious,' one can be said to be conscious of an item only if he is coincidentally

aware that he is conscious of it. To meet the objection that no one can be aware of an item and at the same time be aware that he is aware of it, a postulate was advanced by the English psychologist G. F. Stout, in the nineteenth century. According to this postulate, in a second conscious response one can be aware of the awareness involved in a preceding response. Aside from the infinite series of awarenesses which this postulate implies, it is generally agreed by modern psychologists that awareness of a content cannot be a content of awareness.

In a second response one can know that he was aware of something, but this knowledge does not depend on being aware of the preceding awareness. It is merely what we call 'reflection,' which involves the recall of a former content; that is, thinking of the content of which one has previously been aware. The thinking of the former content may include recall of the situation or conditions in which the content was previously experienced. This we commonly describe as 'reflecting on the experience,' but 'experience' is an ambiguous term, sometimes meaning consciousness and sometimes the content of which one is conscious.

As we have said, it is probable that the chief source of the Freudian confusion is the use of the term 'conscious' either in the Hamiltonian meaning as 'co-awareness,' or in the meaning of Stout, or as successive awareness of awareness. Finding out what the psychoanalysts are really talking about is a great difficulty for psychologists. The confusion is increased by the adoption by Freud and his disciples of the notion that contents of consciousness are 'psychic objects,' a notion transmitted to German psychology from the philosopher Wolff, whose philosophy strongly influenced Wilhelm Wundt. The psychoanalysts seem to vacillate between this Wolffian concept and the concept of consciousness as reflective awareness.

G. There is one usage of the term 'unconscious' that is

fundamentally sound, although misinterpreted by psychoanalysts. If an item of content of a former conscious process cannot be recalled (reproduced in thought) you are really unconscious of that item, whatever else you may be aware of. If you can imagine the item after some other person has described it to you, you are conscious of it even if you cannot remember it; but if you cannot even imagine the item, you are unconscious of it, in the psychological sense of the term 'unconscious.' To say that what you cannot imagine (recall) at one time, but can recall later, was in the 'unconscious mind' in the intervening period is to use metaphorical language to express the simple fact that, whereas you could not at one time make the conscious response of recalling it, later you could make that response. For one who really believes that items of contents are psychic objects, which can be preserved as physical objects are preserved, like letters in a file, the language, of course, may not be metaphorical. The unconscious may be believed, by psychoanalysts, to be a place where psychic objects are kept on file, but this tenet of faith is avoided and should be avoided, by psychologists.

3. The Unconscious Mind and Its Historical Antecedents

When one meets some mental fact, or mental process, concerning the causes and conditions of which one is ignorant, there is a tendency to fall back on some supernatural agency as the cause. This tendency appears to have been a feature of humanity from the earliest period and has been especially prevalent in regard to mental disorder; but physical disease, also, prior to the fifth century B.C., was popularly assumed to be due to supernatural agencies. A pestilence afflicting a group of people was easily assumed to be produced by some god who had a grudge against the people. Individual illness was ascribed to the same sort of cause; it was assumed that the person had committed some sin, per-

haps inadvertently, and was being punished by the power against whom the sin was committed. Insanity was ascribed to a malignant being, of an inferior order (a devil), who had taken possession or assumed control of the crazy person. That in popular belief several devils could simultaneously 'possess' a human being is evidenced by the story in the New Testament of the man of Gadarea who was 'possessed' by seven devils.

Epilepsy, however, was not ascribed to devil possession, but to possession by a god. Hence it was called the 'divine disease' or the 'sacred disease.' Inspiration, that is, possession by a god or goddess, was sought by the chewing of poisonous plants, the juices of which could produce convulsions and mental aberration. Heavy drinking seems to have been supposed to cause the person who became excited instead of lethargic to be inspired by Dionysus or some other wine divinity. Shouting, howling, violent dancing, and leaping contributed to the frenzy, which was supposed to indicate possession by the god. Poisonous serpents were carried by the bacchantes in their orgies, but whether the snakes were allowed to bite the devotees, as is the practice in similar orgies in Central Africa, is not known. Ancient writers were all cautious about giving information concerning sacred things, the usual formula being, "but that is a sacred matter which cannot be told." We have enough information about the oracle at Delphi to make certain that poisonous serpents figured in the rituals. The priestess who delivered the oracle at Delphi worked herself into a frenzy, probably by chewing ivy and swallowing the juice, to produce inspiration by the god, who was eventually Apollo but was earlier a serpent god. The pythoness sat on a tripod over a pit in which poisonous serpents were kept, but apparently was not ordinarily bitten. Undoubtedly in some cases the pythoness 'faked' the frenzy that she had to display to indicate that she was really possessed by the god

and so was able to give a previously prepared 'divinely inspired' message.

The snake was an important sacred animal for ancient people, as it is for peoples in India today. Demons, good or bad, could take serpent form, and gods often appeared as serpents. Whether or not the gods or demons possessed human beings while in snake form is not certain. The original god at Delphi was the python, but whether Apollo who took over the Delphic oracle was represented by, or embodied in, one of the poisonous snakes at Delphi was not reported. From the ancient serpent cult developed a religion called Orphism (from Orpheus, a snake divinity) and a system called Pythagoreanism (from Pythagoras, the 'speaking snake'). Pythagoreanism was as much a religion as it was a system of philosophy and had much in common with Orphism.

Pythagoreans and Orphics alike believed that every human being was 'possessed' from birth to death by a spirit, a daimon (not necessarily a bad spirit, or devil), which guided the person throughout, although the person might have no knowledge of such possession. Plato, who derived his philosophy from the Pythagoreans, described Socrates as having a daimon guardian, but we need not assume that the real Socrates had such a belief. Socrates, described as being a very wise man, was said by Plato to know about his daimon and to converse with it; however, Socrates is reported to have been indignant about Plato's representation of him. Of course, the ordinary man could not aspire to the awareness described by Plato, except perhaps through religious rituals developed by Orphism and Pythagoreanism.

Belief in a personal daimon persisted into the Christian Era. The Latin term for the Greek *daimon* was *genius*, and especial ability or competence on the part of any person was ascribed to his 'genius,' not to the man himself. Later it was believed that a man had two of these possessing

genii: a good genius, impelling him to sensible and moral actions, and an evil genius, which worked to lead him or impel him into wrong behavior and wrong thought. In modern languages derived from the Latin, the word 'angel' partly replaced earlier terms for the Greek *daimon*, so that we had good angels and bad angels, the latter being called 'demons' or 'devils.' In speech today, we still refer to a person's 'good angel' or 'good genius' and to his 'evil genius' or 'bad angel,' usually in ignorance of what these expressions imply. Where no adjective is prefixed, 'genius' usually means 'good genius,' and we still refer to 'men of genius' or to the 'genius' of a person.

Possession by a supernatural being, whether of the divine or of the lower order, does not replace the normal ego, although the possessing genius is sometimes called a 'soul' by translators, which increases the confusion of meanings of that term. The possessing devil or good spirit as the case may be modifies the actions and thinking of the person, without the person's being aware of what does it, and the demon may use the person's vocal organs. What the possessed man says, it was assumed, is often something said by the possessing demon, not by the man himself. So, when the priestess at Delphi gave an oracle, it was generally supposed that it was really the god speaking through her vocal apparatus. Likewise, when a devil was about to be cast out of a man, the devil spoke to the exorcist through the man's vocal organs. In other words, the possessing daimon or god knew what the possessed person was doing, but the person did not always know what the 'spirit' was doing.

One of the striking stories of temporary possession occurs in Euripides' drama, *The Madness of Hercules*. According to the play, and the legends on which it was based, Hercules in an insane frenzy slew his own children. Afterwards he was repentant and humiliated because of his crime, until a character in the drama who could be called a 'psycho-

analyst' explained to him that he was not responsible, that the demon that had possessed him made him commit the murders.

In modern religious systems, the possessing devils of ancient superstition have been replaced by 'repressed desires' in the 'unconscious' mind. These represent the genii, good and bad, of early Christian mythology; but in some forms of the revived superstition the unconscious is not a unified entity or being, but involves a plurality of minor devils described as 'complexes' or 'repressed desires' or by other terms according to the particular sect of psychoanalysis. These complexes, as we have said, are conceived as having energy of their own, like so many rats in a basement.

4. *The Advantages of the Supernatural*

Psychoanalysis, of course, does not admit that its devils are supernatural beings, but claims them as natural features of the human being. Just so the ancients assumed devils and gods as parts of the natural world, interacting with human persons in a natural way. The distinction between the natural and the supernatural had not been made by the ancients. Any force or entity that was believed to exist and to have causal relations with the natural world was conceived as 'natural.' The population in central Pennsylvania, which believes in 'hexing' and may employ a professional hexer to put a hex on an enemy or employs another to counteract a hex that he believes has been put on him, consider hexing to be a process as natural as the process of canning fruit or stirring up a cake. It is only from the scientific point of view that the distinction between the natural and the supernatural is drawn. When you call a belief in some entity or occurrence 'superstitious,' you mean that you do not believe that the alleged entity exists or that the reported occurrence was real. You would easily admit that the content of the belief you designate as superstitious

is supernatural. On the other hand, you may believe in something that cannot be disproved and so is not easily proved to be superstitious. Theologians have long differed on the point whether the God in which they believe is a natural or a supernatural being. Since neither the existence nor the nonexistence of God can be proved scientifically, the point is of no consequence. Psychoanalysts, on the other hand, seem to agree that the devils in which they believe are natural, just as did their ancient predecessors and as do the believers in hexing. From the point of view of scientific psychology, however, the unconscious and the lesser complexes are supernatural and should be discussed as such.

There is a distinct advantage in explaining things by referring them to a supernatural cause, for the explanations are considered to be final. The Greeks explained thunder and lightning easily, and so far as they were concerned, finally, as due to a Zeus on a mountaintop hurling thunderbolts. How could he do that? and where did he get the bolts to throw? These were considered to be irrelevant questions, since a Zeus can do anything. It is true that other mythical beings were invented who manufactured the bolts and conveyed them to the Zeus, but this was deemed by most of the ancients to be a superfluous addition to the explanation.

Insanity was explained with finality by assuming that it is the work of a devil. Can a devil produce such results? Yes, that is what a devil is, a being who can do just that. How does a devil operate? Well, you see the results; that is what he does. There is nothing further to be added. Inspiration is just the work of a god possessing a man. What guarantees the truth of the inspired statements? Why, the god; he knows everything. How does he know? Why, he just knows; that's the sort of being a god is. The trouble is, educated persons are likely to become skeptical when they hear 'inspired' statements that conflict. Early Christians never inquired how persons "filled with the Holy

Ghost" could "speak with unknown tongues," that is, could speak previously unknown languages. The Holy Ghost just gave them the miraculous power, just as the god at Delphi gave miraculous power to the pythoness. How can the unconscious perform the miracles ascribed to it? Well, it has the power; it is that kind of thing. To ask *how* indicates skepticism, and to doubt a religious fact is sacrilegious. If you doubt, then you can't understand. Belief in a doctrine as a condition for understanding it has long been a religious requirement and has often been advanced by psychoanalysts. The ancient phrase *credo ut intellegam* (I believe in order to know) is their slogan. The ease of explanation of mental disorder on psychoanalytical assumptions, as compared with the difficulty encountered when the problem is scientifically approached, is undoubtedly an important factor in its popularity. Some psychologists, of the duller sorts, proceed in their writings on topics of psychology as far as they are able to go in a more or less scientific way, but, when they come to points that are beyond their comprehension, they relapse and fall back on psychoanalytic concepts, which easily explain anything.

The finality of explanation by referring the problem to concepts that are themselves unexplained or inexplicable is illustrated by the old doctrine of instincts. Assuming an 'instinct,' of a certain sort, you refer certain types of behavior to that instinct as an expression of the instinct. Behind the instinct you cannot go, so the explanation is final. If one had asked, "What is this instinct, and how does it produce the behavior?" the answer would have been, "The instinct is, in that animal, whatever is necessary to produce the behavior; it produces it in whatever way it is produced." The instinct, in other words, was merely a name for the problem, and giving the problem that name usually puts a stop to further investigation. Skeptics, however, were not satisfied with the procedure of explanation by naming.

Likewise, referring the problem of storms to Zeus was merely giving a name to the problem. Zeus was whatever was necessary to produce the storms. A devil, as the cause of mental disorder, is whatever is necessary to produce the disorder. Explanation by applying a name is still prevalent in many fields. There is no doubt that some psychiatrists, when they have diagnosed a disorder as 'schizophrenia,' think they have explained the disorder. If this were not the case, there would not have arisen so many 'cures' for schizophrenia. Schizophrenia, it is clear, is too much regarded as a medical entity, reference to which solves a problem concerning the nature of the particular disorder. General terms, or class names, are useful only when used for purposes of classification. When the application of a name is thought to solve a problem, the names become obstructions.

There is another great advantage in a system that depends on the supernatural. There are, in fact, two connected advantages insofar as the system is designed to exploit the credulity and ignorance of the population. Exploitation for profit is much easier when explanations are based on the supernatural. Obviously, persons who are uneducated and those who may perhaps be constitutionally limited in intelligence are not able to probe into the alleged supernatural bases of phenomena, although persons of better education and higher intelligence may be skeptical. Soothsaying and divination were profitable lines of business in the ancient days, and the semanticists and oracle makers did very well indeed, so far as profits were concerned. A person who was *semantikos* (skilled in the interpretation of omens) had a 'soft racket.' Religious medicine today is an even 'softer racket.' One who does not depend on the supernatural explanations is much more apt to be exposed as a charlatan. A doctor who is incompetent, but who presumably practices medicine on a scientific basis, may do fairly well for a time;

but, since he presumes to base his procedure on factual knowledge and scientific principles, he does not attain high standing and is constantly in danger of exposure as a quack. A religious practitioner, on the other hand, is not subject to scientific criteria and not only is less apt to be exposed, but also coins money at a faster rate.

The second advantage, connected with the first, accrues only in modern times and did not obtain in the ancient period. This is the advantage that employment of the supernatural does not require high education nor a high level of intelligence. In olden times, an oracle maker or a semantacist had to be a smart fellow and well educated. His clientele was made up, for the most part, of men of importance: commanding generals who wished to know when to attack the enemy; rulers presenting problems of state; wealthy men, in a period in which wealth went with education and intelligence. No stupid person could have dealt with these persons and gotten away with it. The giver of oracles, or at least the *maker* of the oracles which were given (it is not probable that the pythonesses who gave the oracles at Delphi actually made them up), had, furthermore, to be well up in current events in all lands from which persons or deputies might come to consult the oracle. Devoid of such information, the oracle maker might be caught in a bad slip. The oracle maker, also, had to be smart enough to formulate the god's statement in a way not too clear; to formulate it in the way which would be most likely to seem prophetic however the matter might come out. The oracle given to the King of Lydia, to the effect that if he fought the Persians a great empire would be destroyed, was a safe guess; but it was safe only because the maker of the oracle knew enough about both groups to know that the outcome would be destructive to one of the combatants.

The routine semanticists who read the omens from the entrails of sheep or other animals perhaps did not have to be

so widely informed, but they had to be well up on the practical features of the situations for which they read the omens, if they wanted to keep up their reputations and protect their 'rackets.' If one read the signs as favorable for an attack on the enemy, and disaster resulted, his credit as a semanticist went down.

In modern times, spiritualist mediums do not need to be highly intelligent or well educated. They proceed largely by means of routine formulations and ritualized cant. A certain amount of shrewdness in guessing about their clients is useful: but even these guesses are matters for which rough statistical rules can be developed. The clientele of mediums is generally low in intelligence and education and high in superstitious credulity. The mediums make their big hauls, of course, from wealthy persons, but wealth today does not imply either intelligence or education. I have investigated many mediums in the past, but have not found any who were smart or well educated. Some, indeed, had failed in every line they had tried until they became mediums.

The persons who today call themselves 'semanticists' (in ignorance, happily for them, of the derivation and implication of the term) are no exception to the rule. They appeal to the duller section of the population, the intelligentsia included, and are themselves not very smart or well educated. The religious 'rackets' of which the radio broadcasts are now full require of the racketeer only intelligence of the business type, and education would ruin most of them.

Psychoanalysis follows the same line. Whatever may have been the requirements for the ancient exorcist (caster out of devils) as regards intelligence and education, no such requirements are laid on his successors. All that is required of the psychoanalyst is a 'union card' (an M.D. and admission to practice) and memorization of the techniques and terms of the cult. I have known some doctors who, with no

previous experience, have accomplished this in six weeks. The kind of medical training and its effects on the doctor are not important, for the psychoanalyst, however trained in medicine, does not use his medical knowledge and skill, if any.

5. *Complication of Religious Explanations*

Consideration of the conditions surrounding a phenomenon that is 'explained' on a supernatural basis leads to complication as more factors are added to those originally assumed. This process of complication leads to divisions of faith, some believers accepting certain additional factors, some rejecting them. Division of a cult into sects is a division on the basis of subsidiary concepts. The complication, however, has other results.

The development of a miraculous concept may lead to the association of factors that really are associated, quite aside from the explanation given. The concept of a Zeus beginning a storm by hurling bolts from a mountaintop is based on observations that are valid. Thunderstorms are more frequent in mountainous regions than on plains. In the regions in which the Zeus explanation grew up, rains commenced, observably, in the higher mountainous regions and extended to lower regions. Clouds hung around the mountain peaks more than in lower altitudes. Locating the thunder god on Mount Olympus, Mount Sinai, Mount Ida, or whatever high mountain was adjacent to the area represents a connection of factors of storm production that are accepted by meteorologists today. The connection of these phenomena, however, was not explained by the supernatural theory; on the contrary, explanation was hindered by the Zeus superstition.

In a similar way, psychoanalysts have associated with their theories a considerable number of facts that are well known to psychologists and have absorbed into their systems

a considerable number of notions of popular origin that psychologists distrust. The established facts, however, are not soundly interpreted, because they are assimilated to a theory of the supernatural and are distorted by the assimilation. The facts, indeed, are made indistinguishable from the popular fallacies assimilated along with them. No important factual features of psychology were discovered by psychoanalysts or by the psychoanalytic method, except insofar as psychoanalysts have found out things of which they were previously ignorant, but which were already known to psychologists and others. All myth making involves two features: the absorption into the myths of established facts and the absorption also of other myths.

A further feature of the complication of myths is that as they become more complicated and, as schisms develop, skepticism is produced. When a system of faith or doctrine splits into sects that differ in doctrine, more and more persons are motivated to look behind the supernatural explanations to find out what factors really are at work, to discover what facts, if any, the myths really represent. This happened to the ancient myths, and an optimist may foresee that it will happen to the myths that have been reformulated in modern times and that have grown by absorption of folklore and some facts. The very development of psychoanalysis may indeed weaken it and prepare it for elimination. What protects it, however, is its profitable aspect. It is much more lucrative than any of the ancient systems of magic. It is further protected by the fact that neither high intelligence nor a high educational level is required of those who would profit by its practice. In fact, either of these is a disadvantage.

6. The Unconscious According to Plato

Plato, who derived his philosophical principles from the Pythagoreans, appears to have invented the 'soul,' which

was later adopted by Christianity. Plato combined synthetically the old *psyche*, or life entity, and the Pythagorean daimon, or genius, which the Pythagoreans believed possessed and guided every human being from birth to death, and called this synthesis the *psyche*, which should not be confused with the *psyche* of Aristotle, as it too often is. Plato assumed two egos—one for the body and the other for the *psyche*. It is not strange that this combination made ‘the unconscious’ appear for the first time in any writing that has come down to us. Socrates is made by Plato to give the description of the unconscious part of the *psyche* in the first section of the Ninth Book of the *Republic*. Socrates and his questioner, Glaucon, are discussing appetites and desires, and Socrates has declared that it is possible to get rid of lawless desires. “What desires do you mean?” inquires Glaucon. “Those, said I [Socrates is telling the story], that are awakened in sleep when the rest of the *psyche*, the rational, gentle and dominant part, slumbers; but the beastly and savage part, replete with food and wine, gambols, and repelling sleep, endeavors to sally forth and satisfy its own purposes. [Shorey says ‘instincts,’ but ‘desires’ would be a more valid term.] You are aware that in such case there is nothing it will not venture to undertake as being released from all sense of shame and all reason. It does not shrink from attempting to lie with a mother in fancy [Freud’s Oedipus complex] or with anyone else, man, god or brute. It is ready for any foul deed of blood; it abstains from no food, and, in a word, falls short of no extreme of folly and shamelessness” (*Loeb Library*, Vol. II., pp. 335-337).

Glaucon then remarks, “The point we have to notice is this, that in fact there exists in every one of us, even in some reputed most respectable, a terrible fierce and lawless group of desires, which it seems are revealed in our sleep” (*Ibid.*, p. 339).

Here we have a theory of dreams that is not exactly that of Freud, but which involves the fundamental features of Freud's dream theory, and the basis for the postulate of 'the unconscious.' Plato, of course, did not call the erotic desire toward a mother 'the Oedipus complex,' for, as any educated person knows, Oedipus, when he married his mother, was not aware of the relationship.

While it is possible that Freud drew his ideas directly from Plato, we have no evidence that Freud ever read Plato's dialogues. The theory of the unconscious came down to the modern era through a number of channels, including sequences of Jewish philosophers such as Schopenhauer and Von Hartmann. A friend who is a Talmudic scholar of ability once told me that psychoanalysis is all in the Talmud.

7. The Interpretation of Symbols

According to the theory which Plato implies was familiar to people in his period, the sleeper dreams frankly of doing the things he has wanted to do, but from which he has been restrained by social conventions and moral considerations. Freud and his disciples admit that this frank and uninhibited dreaming does sometimes occur. For the most part, however, it is postulated that a person's inhibitions are operative even during sleep, although they are not so effective as during waking hours. Hence, the repressed desire appears in dreams somewhat disguised or camouflaged. You would like to kill one of your associates, for example, but have scruples against murder and will not even admit that you have the desire. You do not dream actually of murdering the fellow, but dream of a tombstone or coffin on which his name appears. If your inhibitions are more effective, according to Freud and his disciples, you may not even dream of the person's name, but dream of another name with the same initials.

The inhibitory function is exercised by something called the 'censor,' which is sometimes presented as part of your 'soul' or as one of your souls, sometimes more cautiously as a sort of function exercised by a part of the soul. During sleep your censor is less discriminating than during waking periods, hence repressed desires slip by it, from the unconscious into the conscious, in disguises through which the censor would easily see when you are awake. The disguised desire is called a 'symbol' of the real desire—what the Greeks called a *sema*, from which was derived the name 'semantics,' the art of interpreting omens. The Freudian dream theory obviously is a combination of the Platonic theory with the ancient doctrine of omens and the interpretation of omens. That this combination was made by Freud is not probable, since Freud was too naïve and too lacking in ingenuity to have thought it up. Investigation of the sources from which Freud drew will undoubtedly show this ingenious combination appearing in earlier centuries, but historical work has not been carried out on this problem.

The Freudian combination was a great improvement, from a certain practical point of view. On Plato's basis, any dreamer, on awakening, could interpret his dreams, if he could remember them. On the theory which we may call 'Freudian,' regardless of uncertainty as to its actual inventor, an expert semanticist is required for the explanation of the dream symbols, just as in ancient days a professional semanticist was required to interpret the omens found in the livers or other visceral organs of sheep or to interpret dreams on the ancient hypothesis that they were prophetic (*cf.* Daniel and Joseph). Plato admitted the occurrence of dreams of this type, as well as dreams involving repressed desires, an admission that was involved also in Homer's reference to the two gates of dreams, the ivory gate and the gate of horn, adopted also by Vergil. The

need of a professional semanticist, of course, provides lucrative jobs for the semanticists.

Another practical advantage of the symbolic theory is that the semantic expert can interpret the omens as he chooses. He is the expert, and his interpretations must be accepted. Rival interpretations, especially those given by laymen, are ruled out. The amateur cannot possibly know; only the expert who is properly authenticated could know. The method of authentication of psychoanalysts, which is analogous to the conferring of divine rights and powers on a member of the clergy, need not be considered at this point. Just how an ancient semanticist was sanctified for his profession we do not know. That was, as Pausanias and Herodotus constantly said, "a religious matter," and ancient writers were chary of reporting religious matters directly.

Every psychoanalytic practitioner has his favorite complexes and invariably discovers them in his patients. Those who follow Jung find the so-called 'Oedipus complex' and 'Electra complex' in most cases. Others find complexes of different sorts. The semantic nature of their dream interpretations makes the procedure easy. But what do the less clever practitioners do? They follow routine, such as the mechanical systems which Freud adopted. A list of stereotyped interpretations is accepted and applied in a mechanical way. In Freud's system, any long object dreamed of was a symbol of the male organ, and any hollow object a symbol of the female genitalia. Certain symbols were developed from verbal habits in vulgar German speech: the German word for flying is a common idiom for coitus, so dreaming of flying is symbolically dreaming of coitus. Of course, Freud admitted, when his mechanical system of interpretation was attacked, the meanings are sometimes different. He used other interpretations at times, but, not being very ingenious, he fell back mainly on the routine interpretations. He admitted also that the symbols are not

necessarily representative of repressed erotic desires, but could symbolize repressed desires of other orders. In most cases, however, the meanings actually attributed by present practitioners, as well as by Freud himself, turn out to be erotic.

To the technique of dreams Jung, a more ingenious man, added the association method. Jung had worked on the association problem by the verbal method in a psychological laboratory in his younger days, apparently with little success. When he applied the word-association method to psychoanalysis, however, he 'went to town.' Jung was skeptical of stereotyped interpretations and realized that other types of interpretation were arbitrary. It was necessary to find out what the symbols really meant, and this can be found out only from the patient himself.

Patients accordingly were called upon to relax their minds and let associations develop freely. Some item from a dream was then mentioned, and the patient reported whatever this 'suggested': *i.e.*: whatever content was brought up by association.

Interpretations of dreams by the association method usually come out in accordance with the interpreter's ideas. If at first you don't succeed, keep on, and the 'right' association will be found. When the patient's attention is directed to a certain topic, his associations follow that direction. Most patients know before the method is applied that erotic associations are expected.

Without specific direction, this method may be used to dig up matters which the subject or patient has forgotten temporarily. For this purpose, the patient's dreams are not adequate. A dream constructed to fit his case, and read to him, to be accepted *as if* it were his dream, works better. There are three stock dreams, one of which would fit almost any case.

In the case of a fellow who dreamed about a pullet and a

cat, the psychoanalyst, who already knew something about the young man, had no trouble in getting his associations to reveal his complications with two girls. In some cases, however, the psychoanalyst has to resort to weird methods of interpretation. Jung's case of a man who dreamed of a number is an example. Was the number a street address or a telephone number? It wouldn't fit in. Finally he added up the man's month and date of birth (as 7-21), his wife's, and his mistress's. This didn't quite make it, so he added in the years (as '73) and the total was all right. *Ergo*, the number symbolized trouble he was having with his mistress. It is obvious that Jung already knew what the trouble was, or he wouldn't have brought the mistress into the numerology. These examples illustrate the fact that if you know what you are after, the dream interpretation can be made to fit the case.

Dreaming offers no great difficulty of explanation to psychology. The general conditions of dreaming are well understood, and the particular contents of particular dreams are not difficult to account for. No mythical unconscious is needed.

Having developed a theory of dreams, Freud expanded it to apply to slips and errors of waking life. If you drop a piece of pie off your fork, that isn't just clumsiness, says Freud. It symbolizes some unconscious repressed desire. If you forget someone's name, you have an unconscious grudge against the fellow. If you knock a vase off a table and break it, some repressed desire is expressed. In his 'psychopathology of everyday life,' many instances interpreted in this way are given. The most entertaining of Freud's cases is that of a woman who danced the can-can to please some friends, against her husband's wishes. He applied to her a vulgar name that indicates an immoral woman. The next day, in driving a team of spirited horses, she had an accident and broke her leg. Ah-ha! An un-

conscious desire to break her leg so she couldn't do the dance. That she was much upset by her husband's insult and was extremely 'jittery,' Freud didn't consider important.

The basis for psychoanalytic interpretation is: nothing that has been consciously presented to a person ever fails to be retained, even if it has been forgotten. In the unconscious all the contents of conscious experience of the past are filed away and under proper conditions can be recalled. The only factual basis is that some things that are not recalled for a time may be recalled later. That such cases prove the theory of the unconscious storage cellar, psychologists do not accept. What a junk yard the mind is, according to the psychoanalysts!

The whole theory of the unconscious mind is couched in the concepts of the old German psychologists, which modern psychology long ago abandoned. Thoughts are entities, which, like lead pencils and letters, can be preserved indefinitely. In modern psychology, conscious experiences are regarded as actions. If particular responses are learned, the habit of making them persists, and the response can be repeated. If you learn to make a jackknife dive, later you can make another. Is there a dive conserved somewhere for future use? No, you merely have acquired a habit that may persist for a variable length of time. A thought, or perception, is regarded by psychologists in the same way. The theory of the unconscious is merely a theory of habit expressed in mythological terms.

There are some interpretations of symbols that are not broadcast by the psychoanalysts but are held as esoteric matters, since to those not converted to the doctrine the interpretations seem ridiculous. One of these is the interpretation of a child's interest in its fecal excretions. This indicates that the child will develop financial ability, because he is interested in matter that has the yellow color of gold. Such interpretations come amazingly close to the ancient

reading of omens, being 'prophetic' in the strict sense of the term. It is not a question of some idea that has been repressed into the unconscious, since an infant who has never seen gold money could have had no idea about it. Since gold has passed out of circulation, and will be little seen by persons of the future, the symbolism may have to be justified in some other way; perhaps the psychoanalysts will fall back on the significance of the old phrase 'filthy lucre.'

Another interpretation that is mirthful to those not addicted to psychoanalysis accepts constipation in an infant as a symbol of an unconscious desire to keep possession of what he has. In the prophetic vein, the child will grow up to be careful and conservative of his belongings and is in danger of becoming a miser.

8. *The Conscious Mind*

Modern psychologists, as we have said, reject the unconscious mind because they reject the theory of a conscious mind on which it is based. In relating the unconscious to the conscious, psychoanalysts are relating two mythological entities or two systems of mythological entities. The conscious mind of psychoanalytic theory is a curious system, or collection, of entities, which are conceived of as 'mental' but nevertheless as real entities. This notion was accepted by German psychology and for a time by English and American psychology. German psychology has never caught up with modern American psychology, for the Gestalt psychology, which is the newest form of German psychology, is still based on the concept of mental objects. According to this old theory, when one is conscious one is aware not of anything in the real world, but only of mental entities, which are the private property of the individual person. Among these entities were assumed to be some called 'percepts,' others called 'images,' and others called 'feelings.' The term 'consciousness' was applied to the total collection

of these mental objects. In other words, consciousness did not mean the system of processes of being aware of things, but meant that of which one is aware, that which we nowadays call the 'content of consciousness.' Eventually William James introduced the notion that the being aware of something is at least as important as that of which one is aware, but did not develop this notion. Titchener eventually admitted that awareness is something important, but continued to mean by consciousness not awareness, but that of which one is aware.

The psychoanalysts accept the old notion of mental objects fully. When they speak of percepts, thoughts, and desires, they are not speaking of conscious processes in the modern meaning of the term 'conscious,' but of entities of which one may or may not be aware. If this mythology is accepted, the development of the notion of the unconscious is logically consistent. Why should not an entity exist when no one is aware of it? If furthermore these entities have or exert energies of their own, these energies would not cease when the owner of the entities ceased to be aware of them. An item forgotten might still be active.

The analogies that psychoanalysts have brought forward, such as Freud's comparison of the unconscious mind with rowdies ejected from a town meeting and continuing to interfere from outside, are reasonable analogies if one believes in a conscious mind such as the old myths described. The analogy could be extended to include rowdies coming into the meeting in disguise, a process analogous to symbolism.

The old notion of a consciousness or mind composed of entities was not abandoned by psychologists arbitrarily. There were several cogent reasons for the progress. The notion of mental entities, to which one's awareness was supposed to be restricted, had long been a target for the skepticism of philosophers. "If your knowledge is restricted to your world of private objects, how do you know there is a

real world outside of you?" the skeptics asked. Two alternatives were adopted by those adhering to the doctrine of private worlds. Some said, "We don't know; very likely my private world is the only objective world there is." This position is called 'solipsism.' A woman philosopher who had adopted this view told me once that so far as she knew I was just a figment of her mental content, and nothing more. Logically, of course, she would have to believe that she herself was also just such a figment of her own mental content.

Others, who could not so easily abandon the belief in a real external world, put the matter completely on the basis of faith. Descartes admitted that such faith is really religious; but Titchener and other early psychologists of the German school held the faith while ignoring its religious aspects. They just believed that it was true, and without any proof, they were content.

The doctrine of 'mental images,' which was invented by the Greek philosopher Democritus three hundred years before the Christian Era, was the basis for the doctrine called 'dualism'—the doctrine of a world of mental objects distinguished from the world of physical objects—but the theory did not gain much following until Descartes and Malebranche developed it from the ancient basis in the latter part of the seventeenth century.

On a practical basis, it seems one might account for sense perception, in which one perceives objects and occurrences that actually stimulate the sense organs, but it would be difficult to account for awareness of objects that are not present, not stimulating the senses, and that may even have passed out of existence, like the letter I burned yesterday, but of which I can still think. Thinking is a form of being conscious that must be admitted, and which needs explanation. The explanation given by ancient philosophers was that, when something is perceived, a copy or image of it is

formed or stamped and this copy is retained in the organism and can later be a content of consciousness. They, it is true, assumed these images to be physical objects, since they assumed a real physical object perceived as the source of an image. The step to the notion that both the objects originally perceived and the copy image are merely mental objects, the step taken by Descartes and Malebranche, was not a long step.

The doctrine of mental images was accepted by psychology down to the beginning of the present century, but has passed out. If we speak of a mental image, visual image, auditory image, etc., today, we use the terms metaphorically. By mental image we mean any content imagined or thought of. By visual image we mean something which, if perceived, would be seen rather than heard or perceived through some other sense. No assumption of a mental object different from the object thought of is involved. The explanation of imagination and how it occurs is found in the response system involving the nervous and muscular systems. The cleavage between modern psychology and the archaic psychology on which psychoanalysis is based is sharp.

9. *The Operation of Psychoanalytic Techniques*

Although the theoretical bases of a technique may be unsound, that, for some persons, is not sufficient grounds for its condemnation. What people want to know is whether or not it 'works.' The doctrines of psychoanalysis may be mythology; but does this mythology succeed in its practical purpose? The principles of psychoanalysis have been applied in many directions, and in some of these applications the results are satisfactory to *psychoanalysts*. Art, for example, has been 'explained' by psychoanalysts: when a painter paints a picture, when a sculptor makes a statue, when a musician composes music, he is merely expressing his repressed desires in symbolic form. Details of the pro-

duced art object can be interpreted as symbols of the unconscious urges of the artist, in the same way as that in which dream symbols and errors and misbehavior in waking life are interpreted. If one is satisfied with such explanation, and has no interest in finding out the actual facts, this explanation is as valid as the myth of Zeus hurling thunderbolts.

That the work of an artist is determined by his desires, interests, frustrations, and ambitions has always been accepted. There is nothing new in the idea except the notion that the mental factors activating the artist are 'unconscious,' and this may well be doubted. In the psychoanalytic system, however, any factor is unconscious when it is convenient to call it such, regardless of its conscious nature, in the psychological sense.

Religion has been 'explained' also, by assigning it to expression of repressed erotic desire, an explanation originally offered centuries before Freud. History and politics, too, have been 'explained' by unconscious desires, desires that are as conscious as are the desires of religious persons. A few years ago, an ambitious author explained geometry as the symbolization of the erotic desires of the geometers. Although some of the ancient sex symbols were simple geometrical designs, it would probably have surprised Euclid and Pythagoras if they had been told that their use of the triangle in their theorems was due merely to repressed 'sex desires.' If, however, a geometer should claim that he had no repressed desires, that would prove the point. If you haven't a conscious desire, that proves that the desire is unconscious.

These fantastic applications of psychoanalytic mythology are amusing but not important. Our main concern is the psychotherapeutic applications, with which Freud was first concerned. Great claims are made for cures of mental dis-

order effected by psychoanalytic methods, and, if these claims are valid, perhaps mythology has its uses.

Janet has pointed out (see Chap. VIII) that if case histories can establish the validity of a theory, then all systems of mental healing are equally well validated, for they all have impressive lists of cures claimed. That every system, whatever its theories, makes some cures, we may admit, as Janet does. Disciples of Coué, the mesmerists, and apostles who work by the laying on of hands have undoubtedly cured cases. That cures have been made at the Grotto of Lourdes and at other holy shrines is undoubtedly true. Weir Mitchell's regimen of rest and overfeeding undoubtedly cured some cases. So did the method of psychological analysis practiced by the Swiss physician Dubois.

Some practitioners of mental healing have gone 'all out' and reported cures of organic diseases. I have even seen a case history of a horse whose leg had been broken, having been cured and the leg made whole by the reading over him of certain religious formulae. At the Grotto of Lourdes and at other shrines, cripples are healed. All these cases may be discredited on the ground that either there was no cure or else the condition reported did not really exist. We can be sure that the horse's leg was not really broken; someone merely thought it was. Some of the cripples who threw away their crutches were not organically crippled, but had formed the habit of depending on crutches, a habit that is easily formed. In other cases, undoubtedly, the disorder was real and was not cured permanently. Often a person can forget an infirmity under the effects of excitement; the really lame may walk without a crutch, but it may lead to worse infirmity. Many cases reported as cured are self-diagnosed; no actual diagnosis by a reputable physician was made. This occurs often in cures by faith and in systems of religious healing. A person thinks he has such and such a disease or disability and later reports himself cured thereof.

Psychoanalysis, however, is protected by not claiming to cure organic diseases or defects and by avoiding the organic psychoses. It avoids, for the most part, dabbling with functional mental diseases such as manic depressive insanity and epilepsy, or with the more serious cases classed under the head of schizophrenia. It confines itself to the cases that may well be classed as neurotic, although unfortunately psychoanalysts are apt to meddle in family situations and to advise on the training of children, for which no psychoanalysts are competent. To the alleged cures of neurotics, accordingly, we direct our main attention.

If a devil is lodged in a person, it is possible that if and when the devil is cast out, he may take with him the materials out of which he has, so to speak, built his nest (or of which the psychoanalyst has built the nest). In other words, if a complex is built up in a cooperative patient, and the person's troublesome features are tied up with the complex by long hours of working with the patient, then elimination of the complex might remove the original causes of the disorder. I think this is a possibility, and it might account for some of the cures reported in case histories. On the other hand, if the practitioner cannot cast out the devil he has created, the latter state of the patient is worse than the former. The complex becomes a real obsession, since the patient takes it seriously, and the practitioner doesn't know what to do about it. Those cases are the most difficult to handle, since the work of the psychoanalyst must be undone in order to start afresh. Twenty-five years ago, before I had found such cases, I presented this possibility before the members of the American Psychological Association. After the meeting, the head of the Boston Psychopathic Hospital came to me and told me that it was no mere possibility; there had been many cases in his hospital of just that sort.

If a patient doesn't take too seriously the theories im-

pressed on him, he is in less danger. However, some of the cases designated as cured have seemed to us to be more seriously disordered than they originally were. Their symptoms had been changed, but that was all. In other cases, the patients seemed really improved, although by no means cured.

The most dangerous feature of psychoanalytic practice is its encouragement of the most disastrous trait of the neurotic, his habit of introspection. In repeated periods of treatment his attention is kept fixed on himself, and he examines himself, and examines his circumstances, always with self-reference. In most cases he is instructed to introspect when away from the place of treatment, to carry introspection as a habit into his daily life. That this procedure intensifies a pathological trait already established there is no doubt. It seems also to develop the trait of introspection in persons not previously afflicted with it. The procedure, of course, is in accord with the theory that the source of mental disorder is within the patient, which is true; however, the technique does not relieve the disorder but makes it worse. If we catch a patient in time, before he has progressed too far on the downward path of introspection, we can sometimes save him by explaining to him what he is really doing to himself and helping him to avoid the further building up of the trait.

The building up of the introspective habit may indeed change the patient's symptoms, by changing his topics of worry. The patient then becomes less troublesome to others and, withdrawing more into himself, becomes an 'introvert,' but a neurotic introvert. Since the characteristics of the introvert may not be disturbing or offensive to other persons, as are those of the extrovert, he may appear to be cured.

Assuming that some cases are cured, or at least improved, although the percentage of such cases is not large, the ques-

tion: What did it? becomes consequential. We may omit consideration of those who benefit directly by having a complex constructed, associated with disturbing factors, and then eliminated, since these are probably not numerous. There are probably others who benefit by other features of the treatment. What are these features?

That the factor which in psychoanalytic lingo is called 'transfer' may have a useful function is a possibility. Transfer means, in plain English, the erotic attachment of the patient to the practitioner. This attachment may be either heteroerotic, as in the case of a male practitioner and a female patient, or it may be homoerotic, as in cases where practitioner and patient are of the same sex. Encouraging of such attachment is a regular part of the approved technique, and the attachment has the advantage, among others, of keeping the patient under treatment for a maximal period, since a patient who is in love with the practitioner is motivated to continue treatment as long as possible in order to be with the beloved one. The pathological dangers of such attachment are obvious; but it is possible that in some cases the new love interest may change the current of the patient's thoughts and preoccupation, giving him a new topic of attention, which distracts his thoughts from his former troubles.

There are other features of technique that also tend to change the patient's interests and preoccupations. Explanation of the theories of psychoanalysis is a regular part of the technique. The patient, according to the psychoanalytic technique, must accept psychoanalytic principles if he is to be benefited; accordingly, the principles or tenets must be presented and (more or less) explained. To patients already minded to believe, this is a fascinating subject matter, especially if the theories are presented in technical language and impressively. Usually erotic matters and concepts are dwelt upon, and this adds to the fascina-

tion. Since in most cases the patient needs new interests to replace his old worries, we can well believe that the interest in the partially understood topics that are presented may have a beneficial effect on one who has a not too critical mind.

The patient also derives comfort from being allowed to talk freely about himself. That constant talking about himself and too much sympathy are dangerous is obvious to the psychologist, for these may make the patient worse; but it may be admitted that in some cases the effects might be beneficial. These factors are all presented succinctly by a practitioner in a recent article.

Psychotherapy, mind you, is the backbone of day-by-day practice, the ground on which the patient's confidence, gratefulness and faith thrive, and, at the same time, constitutes the pith of the doctor's earnings. The patient comes to the doctor to be cured, all right, but in fifty percent of the cases he wants to be treated, to be taken care of, to discuss matters, to believe, to be consoled and comforted, and enjoy friendship and guidance. And while he is nothing loath to open his heart to his doctor, there are, at the same time, resistance, ambivalence, readiness to "high treason," boyish pranks and girlish demureness in every adult man and woman. Sum total: the physician must understand his patients. The patient, in the office, is a kind of alien seeking admittance to the shores of medicine, in a somewhat inimical manner, too, while relying upon medicine's help. (Eliasberg, W., *Med. Rec.*, July, 1943.)

The faith required of the patient is probably the most important curative factor. The patient believes that he is being inducted into a great mystery and that the induction will cure him. The effect is quite comparable to that of initiation into the ancient mystery cults and to conversion in modern evangelistic religions. The stimulating effects of the faith are essentially the same as those of the faith involved in pilgrimage to a holy shrine where cures are performed, or the faith involved in any other religious cult

of healing. The stimulating effects of religious faith are admitted, and this stimulation may, in some cases, be sufficient to put the patient on the road to recovery. In most cases, however, the effects of religious faith are temporary, and it is not a matter of surprise that the cures effected by psychoanalysis are not apt to be permanent, although an occasional psychoanalyst may be as competent as a good priest. There is room for the opinion, however, that in some cases, where further conditions of life are suitable, a start toward recovery under the influence of faith in psychoanalysis may continue to the point of permanent recovery.

10. *The Problem of Repression*

A principle that seems to be approved and accepted by all sects of psychoanalysis is that desires should *not* be repressed. Repressing a desire, the psychoanalysts tell us, shoves it down into the unconscious cesspool of the soul, and there its energy is still operative and may be more damaging than if it were in the 'conscious mind.' In fact, by the implications of some writers, a desire is damaging only when it is repressed.

Now it is evident that there are some desires that are sound and sensible, that they can be satisfied without difficulty, and that these normal desires should be satisfied. There are other desires, however, of which the satisfaction is impracticable. Some could be satisfied only by stupid or silly actions. Others are immoral in that their satisfaction would involve injustice to other persons. Others could be satisfied only by actions that would involve the person in the toils of the law. These are a few of the categories of desires of which the satisfaction is impracticable. What is a person to do when he is afflicted with a desire that it is inadvisable to satisfy? Psychology tells him to repress the desire. Psychoanalysis says no!

Suppose one is in a small social group, to which a youngster is being shown off by having him play the piano. In such a situation one may well have a desire to arise and say, "Phooey! This is terrible!" in a loud voice. Such a performance would be disadvantageous to the perpetrator, as well as wounding to the feelings of the youngster and his parents. What procedure should be followed?

What does a normal person actually do in such a case? He chuckles to himself, thinking how much fun and satisfaction he could get out of making the remark, but he doesn't make it. The desire actually ceases. He now has an idea of a course of action, but has no desire to carry it out. Or, in another case, good feeling toward others makes the desire disappear.

The same situation obtains if the desire is to murder someone. An idea of the good results may persist, but it is not really desire. The desire to rob, etc., is in the same category; it can be advantageously repressed. The methods of eliminating impracticable desires are various; elimination means that one is no longer consciously desirous—that is, the desire is gone.

The only solution in any case in which satisfaction of a desire is undesirable is to get rid of the desire. Since desiring is a process, not a thing, when the process ceases, the desiring is gone. One way to repress desire is to apply the old principle that the psychoanalysts now call 'sublimation.' If you can consciously attend to other topics, and develop, accordingly, other desires, the troublesome ones come less frequently and are less intense when they come.

Suppose the desire is persistent and haunting, will not stop; what then? There is trouble, of course. Such persistent desires are the real source of disorder. If one is constantly hesitating, thinking, "Shall I, or shall I not?" this is 'conflict' of desires, a form of worry situation, which I have pointed out several times as likely to be disastrous.

The worst way to combat a desire is to make direct efforts to stop it. This doesn't work and is probably the source of the psychoanalytic theory that repression is bad. What they mean, in a confused way, is that effort to repress a desire is bad because it doesn't repress it. It is worse than futile, merely keeping it alive and giving it more attention. If by effort to eliminate a desire it could be made 'unconscious,' effort would be something to be highly approved, for it would end the desire; but it doesn't have that effect.

The psychoanalysts are misled by the fact that worry, or mental operation of any sort, leaves effects that persist after the thought (not necessarily desire) has ceased. The person who is suffering from periodic struggles with unsatisfied desires may forget them temporarily and therefore cease to struggle. He is temporarily unconscious of the desire, but he has formed a habit. Desire will recur, and, since a habit is a changed condition of the nervous system—or, to be more indefinite, of 'mind'—he is not the same in intervening periods as if he had not formed a habit. A condition of the nervous system (or the mind, if you choose) has been established such that the conscious process can occur again, although the process itself doesn't persist. This condition is unconscious in the sense of being uncognized; all habits are uncognized most of the time. We can go further: all neural processes are unconscious; there is no possible way of being aware of what goes on in the nervous system.

On the whole, a person who puts himself in the hands of a psychoanalyst is taking a great risk. Commercial psychiatry is more and more given over to psychoanalysis because this branch of psychiatry is proceeding on theory alone, and, although one armchair theory is as good as another, psychoanalysis has the attractive advantage of being an easy method that anyone can apply, as we have earlier pointed out. It has the further, and inestimable, advantage of being

vastly impressive to the average person because of its high-sounding terminology and confused concepts. It is not surprising, therefore, that psychoanalysis is having a great vogue.

Psychiatrists are divided into two groups, *institutional psychiatrists* and *commercial psychiatrists*, and you will note that I have specified *commercial* psychiatrists in the preceding statement. What I have said does not apply to most of the institutional group. Psychiatrists in institutions, especially in large psychopathic hospitals, have a definite job and know how to do it. Their job is to care for the cases that cannot be allowed at large and cannot be entrusted to their families, and this task they discharge in a way as excellent as financial provisions permit. (This is not always true of small private hospitals.) They do not make money, but the commercial practitioners do. Private practice in psychiatry is on the whole the most lucrative profession a doctor can enter. Another difference is that, while commercial psychiatrists pay little attention to medicine in the proper sense of the term, that is, the physical diagnosis and physical care of the patients, institutional psychiatrists are attentive to these factors.

For these reasons I do not like to see a person with a minor neurotic maladjustment come under the direction of a private practitioner of psychiatry. In most cases the patient would be better off if nothing were done to him. If the case is a severe one, the patient will be properly cared for in an institution and cannot be cared for otherwise. When eventually commercial psychiatrists recover from their psychoanalytic debauch and begin to practice psychiatry as practitioners of physical medicine practice their profession, it will be a quite different situation.

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